



Public Utilities

FORTNIGHTLY



Volume 53 No. 6

March 18, 1954

DETERMINATION AND RECORDING OF PROPERTY EXHAUSTION COSTS

By Frank L. Griffith

« »

Capital Cost and Fair Return Part II.

By J. Rhoads Foster

« »

The Need for Recognizing Fair Value

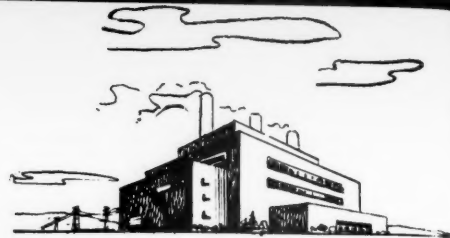
By Paul Grady

« »

Reading Racks: New Industry Communication Tool

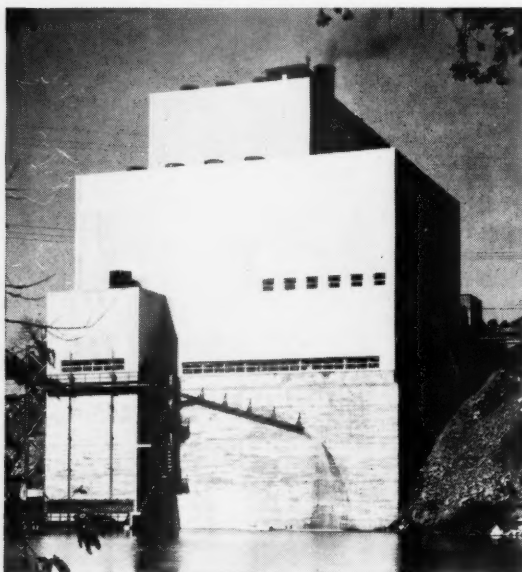
PUBLIC UTILITIES REPORTS, INC., PUBLISHERS

Q-PANELS

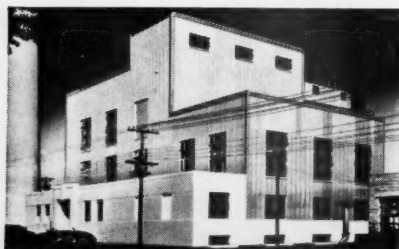


PERFECT FOR POWERHOUSES

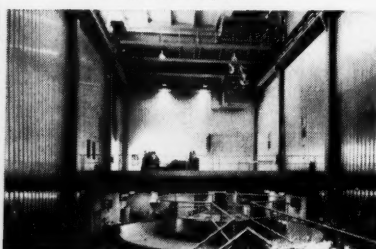
Northern Virginia Power Co., Riverton, Va.
Designed and built by Sanderson & Porter, Inc. Chapman, Evans
& Delahanty, Associate Architects.



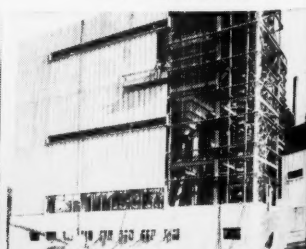
Iowa Public Service Co., Eagle Grove, Iowa
Designed and built by Iowa Public Service
Engineers and J. F. Pritchard & Co.



Tennessee Valley Authority Watauga Project
Elizabethton, Tenn.



Note clean, quick, dry, safe,
curtain-wall construction.



Every feature of a Q-Panel is a desirable feature for powerhouse construction . . . which explains why Q-Panels have captured the powerhouse market.

Q-Panels go up fast—50 sq. ft. in 9 minutes. A small crew quickly attaches the panel to the steel framework. Little blocks don't pile up fast. *It's much quicker to hang a wall than to pile it up.*

Q-Panels provide a maintenance-free exterior; they are available in a variety of materials for exterior finishes, depending on their availability at time of ordering.

A Q-Panel is an insulated metal sandwich, only 3" thick but with insulation value greater than 12" masonry wall.

The striking fluted surface of Q-Panels is now familiar sight on powerhouses from coast to coast.

Write for Q-Panel Catalog

H. H. ROBERTSON CO.

Factories in Ambridge, Pa.; Hamilton, Ontario; Ellesmereport, England.
2404 Farmers Bank Building Pittsburgh 22, Pennsylvania
Offices in ALL Principal Cities in the U. S. A. and Canada

World-Wide Building Service

PUBLIC
or fed
privately
publicly
air and
discrimin
equitable
nd, in g
ree ente
or the f
ag, publi
opics. I
advertisi
of any g
ditorial
endorsem
ociation.
possibili
s contri

United Sta
an Americ
Canada \$16

atered as
nder the A
Baltimore
ghed, 195
nted in U

Editor-in-Chief • ELLSWORTH NICHOLS

Editorial Consultant • HENRY C. SPURR

Editor • FRANCIS X. WELCH

Associate Editors • RALPH S. CHILD

FRANKLIN J. TOBEY, JR.

FORRESTER MAPHIS

NEIL H. DUFFY

DONALD E. ROBINSON

NORMAN J. BARATT

Assistant Editors • M. C. MCCARTHY
M. L. WILLIAMS

Financial Editor • OWEN ELY

Advertising Manager • E. L. COOKE

Circulation Manager • E. S. STEVENS

Public Utilities

FORTNIGHTLY

VOLUME 53

MARCH 18, 1954

NUMBER 6



ARTICLES

- Determination and Recording of Property
Exhaustion Costs *Frank L. Griffith* 333
- Capital Cost and Fair Return.
Part II. *J. Rhoads Foster* 340
- The Need for Recognizing Fair Value *Paul Grady* 357

FEATURE SECTIONS

- Washington and the Utilities 366
- Wire and Wireless Communication 369
- Financial News and Comment *Owen Ely* 372
- What Others Think 381
- The March of Events 387
- Progress of Regulation 390
- Public Utilities Reports (*Selected Preprints of Cases*) .. 396
- Pages with the Editors . 6 • Remarkable Remarks .. 12
- Utilities Almanack 331 • Frontispiece 332
- Industrial Progress ... 27 • Index to Advertisers .. 40

PUBLIC UTILITIES REPORTS, INC., PUBLISHERS

Executive, Editorial & Advertising Offices....MUNSEY BLDG., WASHINGTON 4, D. C.

Advertising Representatives:

New York 6: Robert S. Farley, 111 Broadway, COrtland 7-6638

Cleveland 15: Macintyre-Simpson & Woods, 1900 Euclid Avenue, CHerry 1-1501

Chicago 1: Macintyre-Simpson & Woods, 75 E. Wacker Drive, CEntral 6-1715

Pacific Coast: M. D. Pugh, 2721 North Marengo Avenue, Altadena, Calif.,
SYcamore 7-2894

REPRINTS OF ARTICLES

(200 or more copies)

available on orders received within 30 days after publication date.

Address
WASHINGTON OFFICE
for quotations.

PUBLIC UTILITIES FORTNIGHTLY . . . stands for federal and state regulation of both privately owned and operated utilities and publicly owned and operated utilities, on a fair and nondiscriminatory basis; for nondiscriminatory administration of laws; for equitable and nondiscriminatory taxation; and, in general—for the perpetuation of the free enterprise system. It is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is supported by subscription and advertising revenue; it is not the mouthpiece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.

\$1.00 a Copy

26 Issues a Year

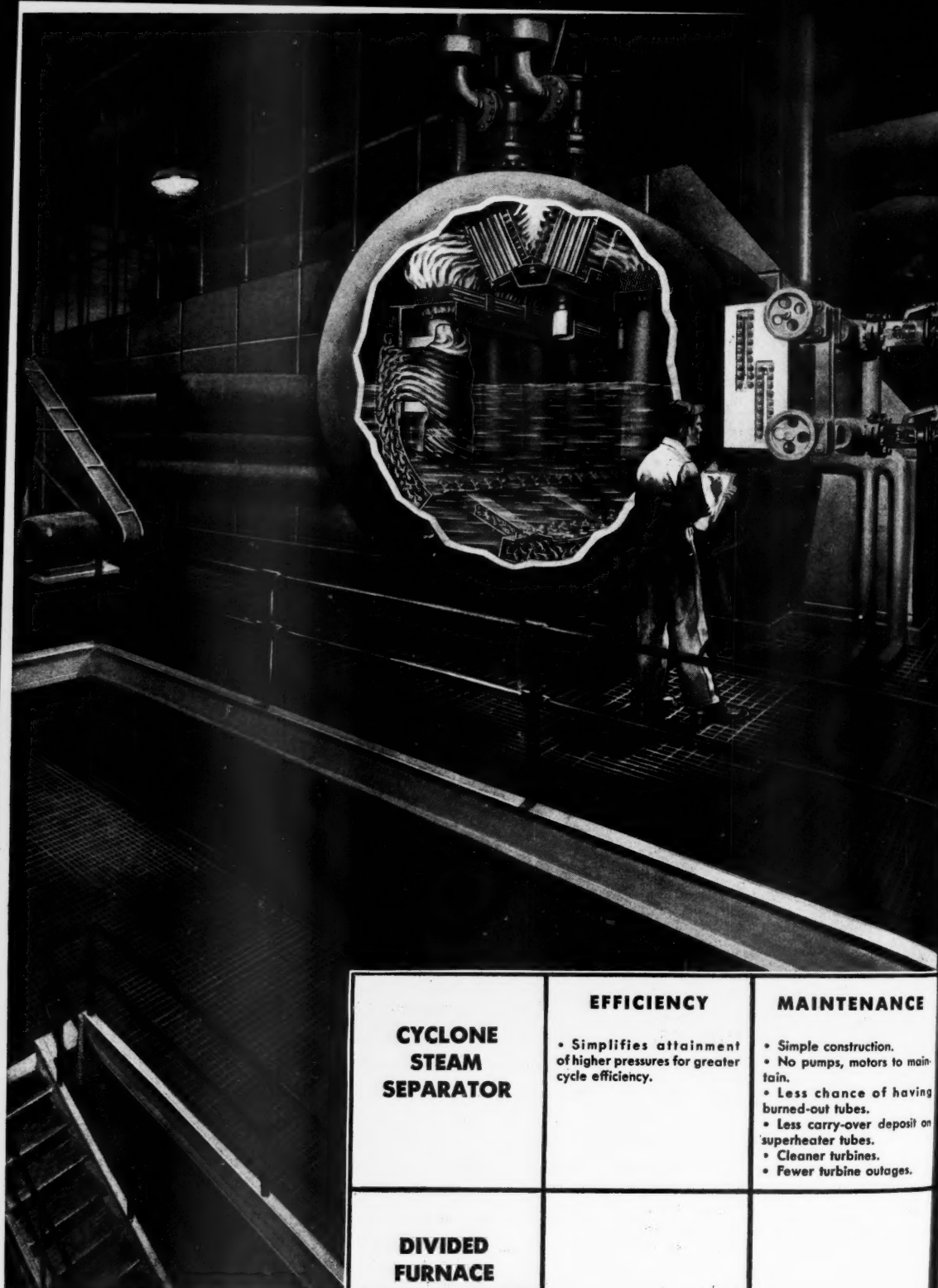
Annual Subscription Price

United States and possessions \$15.00

in American countries \$15.00

Canada \$16; all other countries \$17.50

Entered as second-class matter April 29, 1915, under the Act of March 3, 1879, at the Post Office at Baltimore, Md., December 31, 1936. Copyrighted, 1954, by Public Utilities Reports, Inc. Printed in U. S. A.



CYCLONE STEAM SEPARATOR

EFFICIENCY

- Simplifies attainment of higher pressures for greater cycle efficiency.

MAINTENANCE

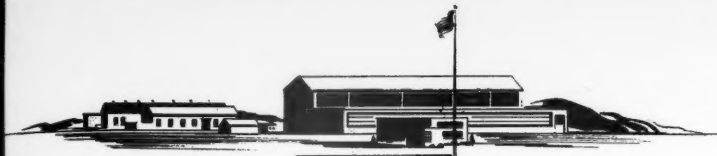
- Simple construction.
- No pumps, motors to maintain.
- Less chance of having burned-out tubes.
- Less carry-over deposit on superheater tubes.
- Cleaner turbines.
- Fewer turbine outages.

DIVIDED FURNACE CONSTRUCTION

AV

- No ur
- in water
- Consis
- Positiv
- circuits.
- Fewer

- Reduce
- and conv



important answers to rising costs

By assuring adequate and positive circulation, B&W's Cyclone Steam Separator has made possible higher steam pressures, greater turbine efficiency, and has facilitated the use of Divided Furnace Construction to reduce material costs and keep boiler and building volume to a minimum. These engineering advances make possible cost and operating savings enjoyed exclusively by operators of B&W central station and industrial boilers. The chart below suggests many of these savings . . . all merit serious consideration in your evaluation.

We will be pleased to discuss these and other practical developments of B&W Research and Engineering as they relate to your power generation program and facilities. The Babcock & Wilcox Company, Boiler Division, 161 East 42nd Street, New York 17, N. Y.



BOILER
DIVISION

G-598

AVAILABILITY	AUXILIARY POWER	INITIAL COST	ACCEPTANCE
<ul style="list-style-type: none"> • No unnecessary restrictions in water flow path. • Consistent high steam purity. • Positive circulation to all circuits. • Fewer tube burn-outs. 	<ul style="list-style-type: none"> • No power required for circulation. 	<ul style="list-style-type: none"> • No pumps, motors or connections. 	<p>The simple, highly efficient Cyclone Steam Separator has been proved in thousands of central station and industrial installations . . . has made possible B&W's singular success with high pressure boilers. In the range over 2000 psi, more than 14 B&W boilers are in operation . . . some with records extending over 14 years . . . and an additional 60 units are being built.</p>
<ul style="list-style-type: none"> • Reduces slagging in furnace and convection surfaces. 		<ul style="list-style-type: none"> • Greater cooling surface without increasing furnace volume reduces steel and other material costs by keeping boiler and building volume to a minimum. Lowers furnace construction costs. Saving in boiler cost. 	<p>Long term central station operation at boiler design pressures as high as 2650 psi, has proved the cost-saving advantages of B&W's Divided-Furnace construction in all types of large units. Many of the more than 95 B&W Divided-Furnace Boilers in operation have been in service for over 12 years, and more than 90 additional units are now on order.</p>

Pages with the Editors

THIS issue might be called, in a sense, an "all economic" issue. It so happens that the three major articles all deal with specialized aspects of problems of public utility economics as they have developed under regulation. Inflation, depreciation, rate of return, and the rate base composition are the well-known major factors treated.

It is probably symptomatic of the times through which we are passing that the problems of public utility industries have become more difficult in the area of economic requirements than in former years. Both Edison's electric light and Bell's telephone have passed their seventy-fifth birthday, which recalls that around the turn of the century, when public utilities were struggling for establishment, such questions as patent rights, franchise and territorial rights were probably more urgent than the question of whether rates were producing earnings sufficient to ensure continued investment.

EARLIER in the century, when the public utilities had become established and were faced with the need for business expansion, service questions and promotional techniques were matters uppermost in the minds of management. But in recent years the tendency of regulation to



FRANK L. GRIFFITH

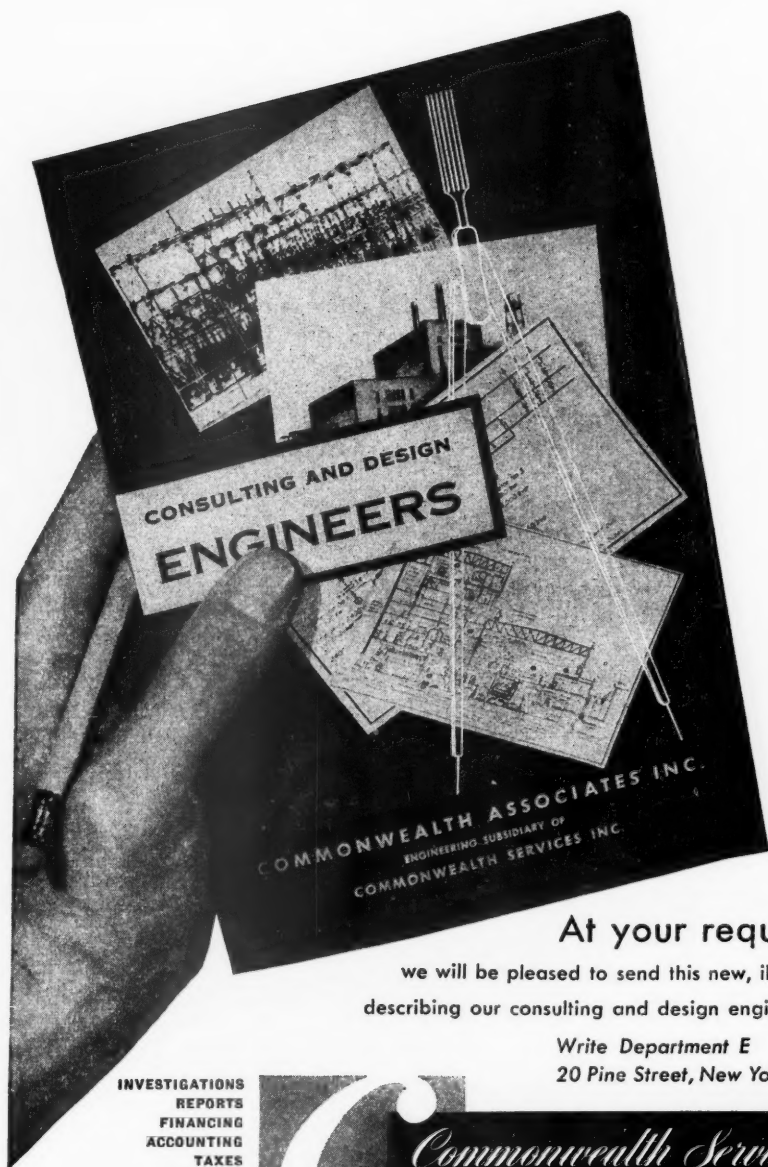


PAUL GRADY

confine earnings to preconceived arithmetical limits has placed more and more emphasis on keeping the flow of capital investment at a safe level. Hence the stress being placed on the basic question of doing justice to the investor under modern rate regulatory processes so as to attract capital.

THE opening article in this issue deals with the challenge of stating the cost of plant investment which has been exhausted in terms of current dollar values. The author is FRANK L. GRIFFITH, vice president and comptroller of The Peoples Gas Light and Coke Company, which serves the Chicago area. He has made an interesting analysis of collateral factors, including return and the specific problem of depreciation or amortization of "property exhaustion cost."

MR. GRIFFITH is a graduate of Lake Forest College in Illinois. He served with the Air Corps in World War I and joined The Peoples Gas Light and Coke Company after his discharge from the service in 1919. He was made assistant secretary and assistant treasurer in 1927 and became vice president and comptroller in 1934. He has always taken an active interest in the work of a number of committees of the American Gas Association,

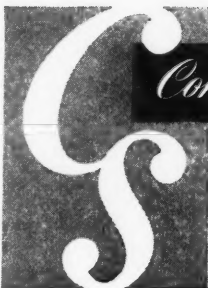


At your request

we will be pleased to send this new, illustrated booklet describing our consulting and design engineering services.

Write Department E
20 Pine Street, New York 5, N. Y.

INVESTIGATIONS
REPORTS
FINANCING
ACCOUNTING
TAXES
INSURANCE
PENSIONS
DEPRECIATION
VALUATIONS
CONSULTING & DESIGN ENGINEERING
METERING
PURCHASING
INDUSTRIAL & PUBLIC RELATIONS
MERCHANDISING
ADVERTISING



Commonwealth Services Inc.

and subsidiaries

COMMONWEALTH ASSOCIATES INC.

*20 Pine Street, New York 5, N.Y.
Jackson, Michigan Washington, D.C.*

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

especially those dealing with taxes, depreciation, and rates.

* * * *

THE second instalment of the 3-part series of articles on capital cost and fair return (beginning on page 340) deals with the meaning of competitive cost and competitive return. The first article in this series by DR. J. RHOADS FOSTER, managing partner of Foster Associates, developed the various meanings of cost of capital.

* * * *

THE third article in this "all economic" issue is on the subject of recognizing fair value. This is certainly a reploving of well-harrowed ground, but the author of the article beginning on page 357, PAUL GRADY, partner of Price Waterhouse & Co., takes an unusually forthright approach. The postwar inflationary period has worn thin some of the original arguments about using net investment as the rate base. This has been variously justified on the grounds that (1) it is convenient and easily ascertainable; (2) tends to strike an economic balance between investor and consumer over a long period, through offsetting ups and downs in the price level; and (3) reinforces the stability of utility equity securities. MR. GRADY does not agree with these reasons. But above all that, he finds that original cost is simply not a fair or just basis for rate making under economic conditions which now prevail and are likely to prevail for the indefinite future.



J. RHOADS FOSTER

MR. GRADY is a member of the American Institute of Accountants and a former chairman of its committee on public utility accounting. He was also chairman of its committee on auditing procedure from 1944 to 1948 and a chairman of its committee on co-operation with bankers. MR. GRADY graduated from the University of Illinois and has been engaged in public accounting in New York and Chicago since 1923, except for a brief period (1942-43) when he served as an executive assistant in the Navy Department. He was director of the task force covering government lending agencies for the Hoover Commission in 1948. He is a member of both the New York and Illinois societies of certified public accountants.

* * * *

AMONG the important decisions reprinted from *Public Utilities Reports* in the back of this number, may be found the following:

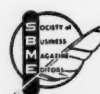
THE Arkansas commission adopts a telephone company's net investment in property as the most appropriate measure of value for rate-making purposes. (See page 1.)

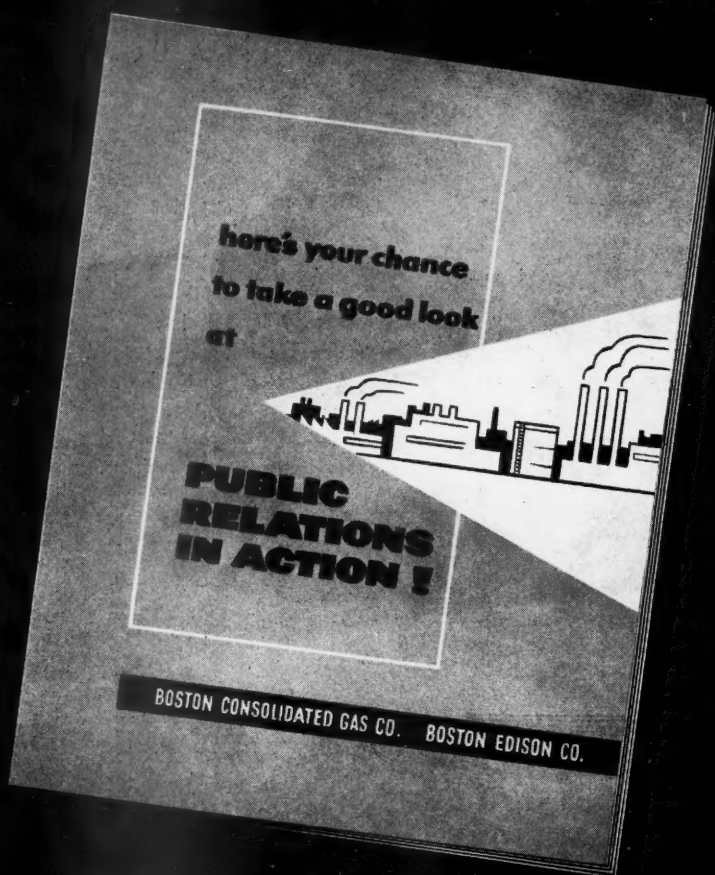
THE basic test of the adequacy of the return for a utility is, according to the Arkansas commission, the cost of servicing and attracting capital. (See page 1.)

THE Florida commission authorizes a gas company to reduce commercial rates in three communities to enable the company to compete with nonregulated fuels. (See page 24.)

THE Massachusetts Department of Public Utilities authorizes a transit company operating on an over-all marginal revenue basis to close a waiting room, not essential to public welfare, to cut expenses. (See page 27.)

THE next number of this magazine will be out April 1st.

 The Editors



get your Free copy of
"PUBLIC RELATIONS IN ACTION"

All of us at Remington Rand hope to see you at the AGA-EEI Convention in Boston, the week of April 12th. For one thing the 12-page booklet you see above will be distributed there. It contains some mighty interesting information for utility people.

This booklet shows how several New England public utilities use modern record

keeping methods, and equipment, not only for first class public relations but for peak operating efficiency too. If you can't make it send for your copy *now*. If you're going, but want a preview, just write Remington Rand, Room 1947, 315 Fourth Ave., New York 10, for Booklet X1498. No obligation, and we think you'll find an idea or two.

Remington Rand

PROFIT-BUILDING **IDEAS** FOR BUSINESS

Coming IN THE NEXT ISSUE



PRACTICALITIES IN RATE MAKING TODAY

This is an analysis of the rate-making situation as it has developed in up-to-date regulatory practice. It contains a background and a summary which point to the basic problem of modern rate regulation—keeping abreast of cost changes. Justin R. Whiting, chairman of the board, Consumers Power Company, is well qualified to discuss the pros and cons of the cost theory in the light of the economics of the present day. He pleads for honest adherence to sound principles, accepting the result in a spirit of fairness and consistency whether prices move up or down.

LIMITING FPC CONTROL OVER GAS DISTRIBUTION

One of the important regulatory bills before the present Congress is a proposal to limit Federal Power Commission jurisdiction over intrastate gas distribution. The basis for this proposal grows out of a sweeping decision of the U. S. Supreme Court in the East Ohio Gas Company Case, which has resulted in a certain amount of duplicate and overlapping federal and state jurisdiction. But there are other considerations which might well be weighed by Congress, according to these authors, Oswald Maland and James Zartman, Chicago attorneys. They suggest that intrastate activities might be exempt, regardless of whether a state commission exercises jurisdiction or whether state law provides for the same.

CAPITAL COST AND FAIR RETURN. PART III.

In the first two instalments of his series of articles, Dr. J. Rhoads Foster made a rather extended analysis and review of the guiding principles which must provide the basis for identifying the capital cost concept. He used the term "competitive cost of capital" to describe that kind of capital cost concept which has validity and meaning for the purpose of utility rate regulation. In this, the concluding instalment, the author goes on to suggest more specific definitions for capital cost. The main feature is a demonstration of the need for examining future prospects of a utility rather than a confinement of the return allowance entirely to a past test period.



Also . . . *Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.*

**Rate
analysis
reports
by _____**

R & S

...have brought forth these spontaneous comments by users

speed.....

"we take this opportunity of expressing to you our appreciation for the prompt and efficient manner in which you handled the preparation of the bill frequency analyses."

accuracy.....

"the analyses have been received and found to be in excellent order. In addition, your attention to my telephoned request on June 2 relative to expediting preparation of these analyses is greatly appreciated."

rate cases.....

"we believe that our study is complete and will be of considerable benefit in our pending case."

continuity.....

"we are very pleased with the former analysis and shall be anticipating the receipt of the new figures."

The R & S "one-step" method of bill analysis (exclusive with us) provides all of these advantages PLUS a cost differential in your favor that will save you 40% or more in time and money.

May we tell you more? There is no charge for estimates!

RECORDING AND STATISTICAL CORPORATION

"Bring your figures up to date — bring them to R & S"

100 SIXTH AVENUE • NEW YORK 13, N. Y.

WO 6-2700

Remarkable Remarks

"There never was in the world two opinions alike."

—MONTAIGNE

WILLIAM RANDOLPH HEARST
Late publisher.

"I put conscientious labor as the first requisite in any form of success."

EUGENE HOLMAN
Chairman of the board, Standard Oil Company (New Jersey).

"A buyer's market is what made America. A seller's market is the exception, not the rule."

GROVER CLEVELAND

"Though the people support the government, the government should not support the people."

GEORGE MEANY
President, American Federation of Labor.

"We definitely feel that this is the time for increasing the minimum wage. It will help stabilize the economy."

DWIGHT D. EISENHOWER
President of the United States.

"We don't have to listen to prophets of gloom who say we are going into some kind of stumble or fumble or fall. The United States doesn't need to fall!"

HARLOW H. CURTICE
President, General Motors Corporation.

"Public confidence is difficult to measure, and so its importance is not always understood. But it is a key factor in maintaining a high level of economic activity."

M. S. RUKEYSER
Columnist.

"From an over-all national standpoint, it seems to me that those with vigor and courage in selling can do more to keep the national economy on an optimum level than the social planners."

FRANK CHODOROV
Associate editor, Human Events.

"Freedom is simply a matter of keeping government from betting bigger and more powerful, which it is always inclined to do. It is the business of the people to keep it within bounds."

CONGER REYNOLDS
Director of public relations, Standard Oil Company (Indiana).

"It has become vital that we make the American brand of freedom, and particularly that part of it that governs our business and industrial pursuits, better known and better understood."

CLIFFORD F. HOOD
President, United States Steel Corporation.

"The fact is that the United States had a close call. It was taken on a long detour toward Socialism. Although we have turned and now face toward private Capitalism, it is a long way back."

CLARENCE MANION
Former chairman, Commission on Intergovernmental Relations.

"Revive respect for the Constitution of the United States. It has gradually fallen into disrespect in the last thirty years. And now some consider it an unfortunate roadblock in the way of the government gravy train."

Electrifying Announcement!



For 21 years, IBM has been making the finest typewriters in the world!

And now two new model IBM Electrics are ready for you—the new Standard and the new Executive*!

These new IBM's have exciting new features never before available on *any* typewriter!

And the work *anyone* can turn out is so fine that every letter is a masterpiece of typing!

You can get all the facts about these beautifully-designed IBM's by writing to:

INTERNATIONAL BUSINESS MACHINES, DEPT. D
590 Madison Ave., New York 22, N. Y.

A New **IBM**

Electric Typewriter

REMARKABLE REMARKS—(Continued)

*Excerpt from
The Guaranty Survey, published by
Guaranty Trust Company
of New York.*

EDITORIAL STATEMENT
The Wall Street Journal.

FRANK M. PORTER
*President, American Petroleum
Institute.*

LESLIE E. GEHRES
*Executive vice president,
Constitutional Foundation.*

*Excerpt from
National City Bank's
Monthly Letter.*

GEORGE E. SOKOLSKY
Columnist.

HARRISON C. HOBART
Assistant Secretary of Labor.

WILLIAM E. JENNER
U. S. Senator from Indiana.

"Free markets and business incentives are the essential features of a governmental program to stimulate production and employment. These features exist automatically in a truly free economy."

"... public works have never yet succeeded in priming the economic pump. . . . at the very least, a public works program as a 'recession cure' is futile. And it can be very harmful. . . . Pump priming is not only futile, it can also wreck the pump."

"Research in any business or industry is the fact-finding agent of science and common sense management. It offers protection against obsolescence and it is as much a part of a sound business program as accurate intelligence is in military planning."

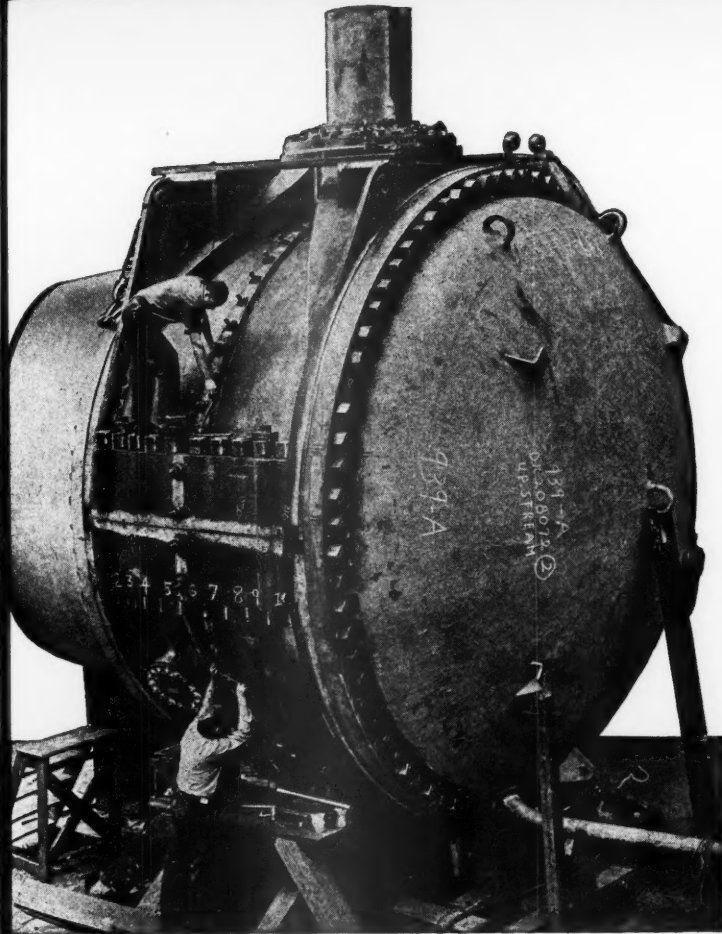
"Like all crusaders, the Communists have a conviction of ultimate victory. They believe that time and history are on their side. By constant but varying pressure, they weary and frustrate the free world and exploit the fears and hopes of the impatient West."

"Planning public works has been prone to create demands for getting projects under way. There is every merit in planning ahead provided Congress and the administration have the fortitude to hold projects back to a time when construction labor and materials are in excess supply and provided also that the projects do not displace programs which private enterprise could and should pursue."

"Many of our great efforts need decentralization. Our people have become so accustomed to expecting the federal government to do everything on a vast scale, involving billions of expenditures, that we forget the old Chinese adage that the place to start cleaning up is on one's own doorstep. While we are making huge demands on the Congress, much more can be done in municipalities, counties, states."

"Government intervention normally does not solve labor relations disputes. It may freeze the status quo, stop a strike, or bring to bear the weight of governmental power and public opinion on one side or the other, but a true solution to a dispute between labor and management must ultimately depend upon their working out a mode of living with each other which is satisfactory to both. The more the government gets into labor relations the less freedom is left to the parties."

"[Treasury] Secretary Humphrey is confronted with difficulties attendant to the return to sound policies. First, he must clean up the economic debris of twenty years of socialist misgovernment with its Communist inner core. He has inherited an overhang of a hundred billion of spending which has been 'charged,' so to speak, by his predecessors, but not yet billed. That outstanding charge account, of more than a year's total tax income, has made it difficult . . . to reduce taxes as fast as we hoped; but a big step has been taken on the road to economic unity."



This 16-Foot Butterfly Valve illustrates the type of work which Newport News takes in stride. Newport News built 3 such valves, each weighing 446,000 lbs., for the Ross Power Plant, Skagit Project, Department of Light, City of Seattle, Washington. Designed for a water flow of 3,620 cu. ft. per sec., and a hydrostatic pressure of 290 psi., these valves were shop tested by Newport News at 450 psi. They are hydraulically operated with oil at 1,500 psi. pressure. Shop tests assure speedy, trouble-free assembly of Newport News built equipment, on the site.

The TEST of a TITAN

is one of the largest high head butterfly valves ever built, undergoing a shop test at Newport News. If you had an opportunity to follow this unit from start to finish, you would see at hand how Newport News produces massive equipment economically. For economy is a basic advantage that results from Newport News' high integration of skill and production facilities.

Large engineering and technical staffs, operating a plant comprising acres of brass, iron and steel foundries, five huge machine shops and other extensive fabricating facilities, have made Newport News one of the world's largest producers of hydraulic pipes, valves, gates, penstocks and other essential equipment . . . standard and special in design.

Let us bid on your equipment. Write us today for your copy of *Water Power Equipment*."

NEWPORT NEWS

**SHIPBUILDING AND
DRY DOCK COMPANY**

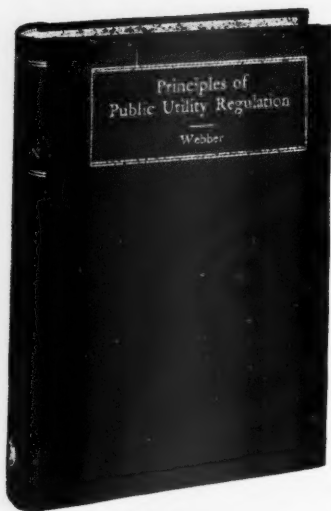
Newport News, Virginia

PRINCIPLES OF PUBLIC UTILITY REGULATION

(1941)

by **A. C. Webber**

(Former Chairman, Massachusetts Department of Public Utilities)



831 Pages
\$6.50

Here are the frank confessions of a commissioner whose aim has been to coordinate the public administration of the regulatory law with the private conduct of the utility business so as to encourage confidence and good will in the domain of both the investor and consumer.

Included are discussions of vital questions, such as:

- - - Taxes in Relation to Rates
- - - Higher Operating Costs in Relation to the Consumer and Utility Stockholder
- - - The Reproduction Cost Rule
- - - Inflation and Utility Rates
- - - Rates of Public Service Corporations and Other Price Levels
- - - Constitutional Safeguards Insuring Reasonable and Just Compensation for Public Utility Property Devoted to Public Service

Concise Supplementary Text Referring to Important Principles of Public Utility Regulation with Annotations

PUBLIC UTILITIES REPORTS, INC.

MUNSEY BUILDING

WASHINGTON 4, D. C.

You may find a fresh approach . . .

Tackling utility company problems daily . . . maintaining close and continued contact with the financial world gives us an understanding of the complex field of utility financing and investor relations which may be of help to you.

A fresh approach to the problem you are now studying may be suggested by a talk with us. Call Public Utilities Department at DIgby 4-3500 or write us at One Wall Street.

IRVING TRUST COMPANY

ONE WALL STREET • NEW YORK 15, N. Y.

Capital Funds over \$123,000,000 Total Resources over \$1,400,000,000

WILLIAM N. ENSTROM, *Chairman of the Board*
RICHARD H. WEST, *President*

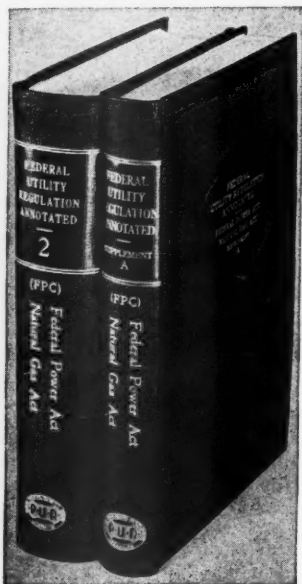
Public Utilities Department—JOHN F. CHILDS, *Vice President in Charge*

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

Federal Utility Regulation Annotated (FPC), Volume 2 With Supplement A

These volumes contain the only full annotation of the Federal Power Act and the Natural Gas Act, as administered by the Federal Power Commission.

Supplemental Volume A reports the activities of the Commission during the 10-year period subsequent to the publication of the original volume in 1943. All decisions in so-called "leading cases" have been made the subject of special editorial comment and interpretation.



Questions relating to the determination of the cost of projects, accounting, rate-base determinations, rates, service, granting of licenses, extent of the Commission's jurisdiction, definitions of what constitutes interstate commerce, return allowance (involving new views on cost of capital), the very controversial subject of cost allocation in the fixing of gas rates, and many other vital subjects are discussed. The decisions of the Commission and of the courts as well, in such important cases as the *Mississippi River Fuel Corporation case*, the *Alabama-Tennessee Natural Gas Company case* and the *Colorado Interstate Gas Company case* are explored at length in editors' notes.

This two-volume treatise, which has required expert editorial attention for an extended period, in order to classify the Commission's findings under each section of these Acts, is now available at \$25. The volumes should be in the possession of all utility executives, attorneys, rate experts, accountants, valuation engineers, utility analysts and others having an interest in the activities, practices and procedures of the Federal Power Commission, and in commission regulation in general.

MAIL YOUR ORDER TODAY TO

PUBLIC UTILITIES REPORTS, INC., Publishers
309 MUNSEY BUILDING
WASHINGTON 4, D. C.

TRUCK OPERATING PROBLEMS GOT YOU

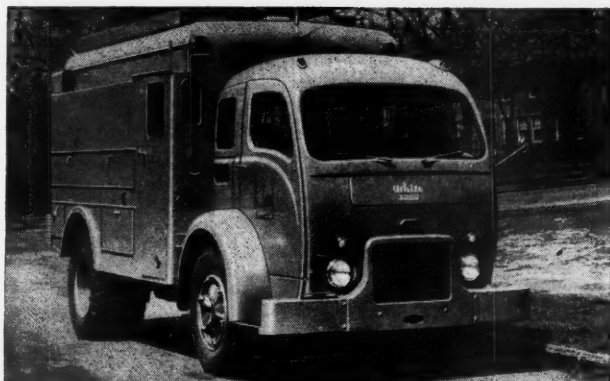
up in the air...

GET FACTS from your White Representative about the amazing versatility... maneuverability... efficiency of this great, new White for aerial and tower work. Functional design and ideal weight distribution save time... do a better, more economical overhead job.



on the line...

IT'S TODAY'S most modern line truck, too! Saves overall length yet permits full-size line truck with plenty of crew space... driving ease... safety... maneuverability.



underground?

SEE how great a job it does with special equipment and riggings in utility service. Saves valuable minutes of time because it really maneuvers into position, even where going is roughest. More weight up front... wonderful visibility and safety.



Go White!

*TAILORED to your exact operating needs,
WHITES do more work in less time*

UTILITIES everywhere tell this same story of efficiency and time-saving when they talk about the White 3000.

It does more work... in less time... at substantial savings.

It's *right* on the job because it's *tailored* to the job.

Find out today, how the White 3000 can help your transportation efficiency now... and for years to come. See your White Representative.

THE WHITE MOTOR COMPANY
Cleveland 1, Ohio

**For More Than 50 Years The
Greatest Name In Trucks**



Twofold Benefits From The **Analysts Journal**

1. Its timely articles by the nations leading security analysts and economists keep you informed as to methods and trends in the security markets. You will be better able to present your company in its most favorable light if you know the trend of financial thinking as expressed in the official publication of the Security Analysts.
2. Its advertising pages provide a means of putting your story across to the Analysts. There is no more direct and effective way to contact this influential group of investment specialists than to advertise in their own quarterly Journal.

To Keep Abreast of Investment Markets

READ THE ANALYSTS JOURNAL

•

To Keep Investment Markets Abreast of Your Company

ADVERTISE IN THE ANALYSTS JOURNAL

PUBLISHED QUARTERLY BY THE NEW YORK SOCIETY OF SECURITY ANALYSTS

THE ANALYSTS JOURNAL
20 Broad Street, Room #908
New York 5, N. Y.

Gentlemen:

- ☐ Please enter my subscription for one year at the subscription rate of \$5.00—United States; \$5.50—Canada.
- ☐ Please send me your advertising brochure.

Name

Address

.....

.....



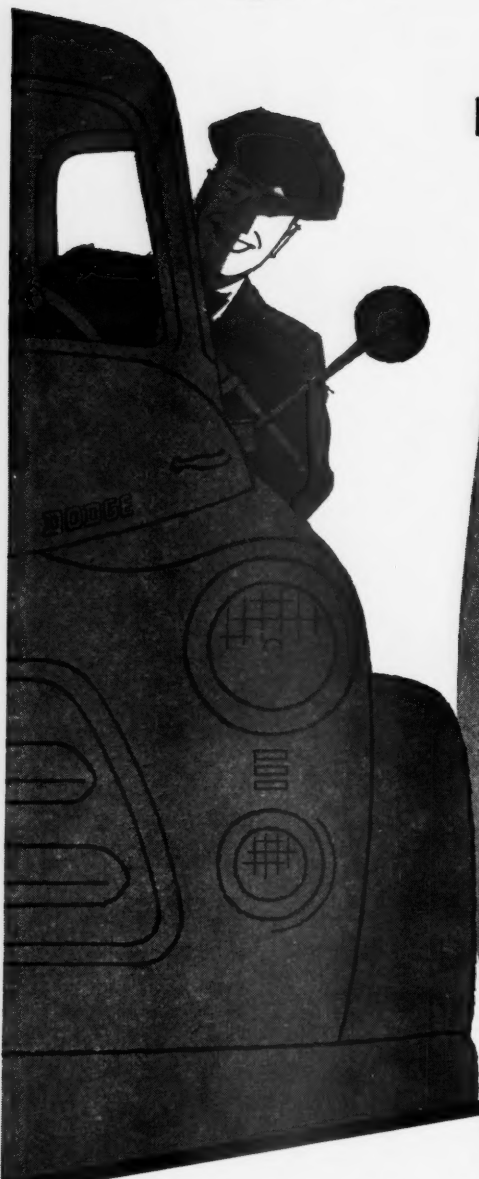
Columbia Gas System
delivers a modern miracle
24 Hours-A-Day!



© The Columbia Gas System

CHARLESTON GROUP: United Fuel Gas Company, Atlantic Seaboard Corporation, Amere Gas Utilities Company, Virginia Gas Distribution Corporation, Big Marsh Oil Company, Central Kentucky Natural Gas Company; **COLUMBUS GROUP:** The Ohio Fuel Gas Company; **PITTSBURGH GROUP:** The Manufacturers Light and Heat Company, Binghamton Gas Works, Cumberland and Allegheny Gas Company, Home Gas Company, The Keystone Gas Company, Inc., Natural Gas Company of West Virginia; **OIL GROUP:** The Preston Oil Company.

New DODGE "Job-Rated" TRUCKS



WITH

NEW! Roomiest Cab! Wide, 3-man cab with easy-chair seat. 951 sq. in. windshield and best all-around visibility of any make.

NEW! Sharpest Turning! 39° turning angle, short wheelbase design for top maneuverability. Easiest handling trucks there are!

NEW! V-8's and Sixes! Most powerful V-8's in popular field—133 to 172 h.p. Plus famous Dodge Sixes. 7 engines in all.

NEW! Low-Built Lines! Built low for better road stability, easier loading, ground-hugging good looks. Lower step for easier cab entry.

ALL ADD UP TO

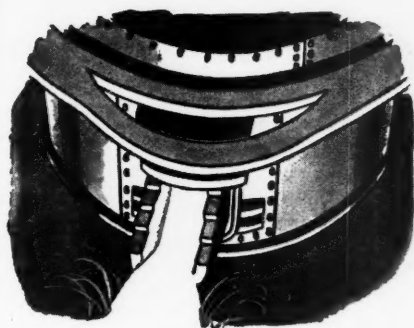
**"A better deal
for the man
at the wheel"**

All-new Dodge trucks
offer a better deal in low operating and upkeep costs, too . . . are priced with the lowest. Make it a point to call your friendly Dodge dealer—or drop in to see him soon. You'll like these new trucks!

See "Break The Bank" with Bert Parks on TV (ABC, Sundays).
Hear "The Roy Rogers Show" on radio (NBC, Thursdays).
See "Make Room For Daddy" with Danny Thomas on TV (ABC, Tuesdays).
Enter the Dodge 40th Anniversary All America Contest. See your dealer.

THIS IS MARCH!

And this is the SPECIAL ADVANTAGE STICKER which dozens of companies are using this month on the front cover of Electrified Industry. →



NEW MATERIALS, new methods and new automatic machinery can save you money. Call on us for power and for free advice on light, heat and power problems.

OHIO EDISON COMPANY

Pass to _____

THE SPECIAL ADVANTAGES of electric service include: . . Convenience . . . Flexibility . . Instant Starts . . . Economy . . . Reliability . . Cleanliness . . . Good Regulation . . . Ability to take Overloads . . . and the Cooperation and Advice on Electrical Problems which most power companies offer.

Customers are reminded of you and of the SPECIAL ADVANTAGES of being on your lines. In addition your stickers help them route your messages to additional readers.

Some companies make up stickers which carry their own slogan (a good idea). Others have Reddy Kilowatt remind the readers that electric power is their willing servant.

Power salesmen make friends for your companies and add to your "net divisable." Years ago they decided that they needed help to overcome the effects of the competitive power, diesel-and-steam, agin-the-utilities magazines that they saw on their customers desks. They helped create the picture magazine which tells the true story that electricity, properly used, is worth many times its cost.

They use this magazine to make 21¢ calls for them in between the \$5 and \$10 calls they make in person.

By using Electrified Industry they are able to maintain better-than-ever customer contact and increase the net revenue of the utilities.

ELECTRIFIED INDUSTRY and *Today's Business*

Martin Publications — 20 No. Wacker Dr., Chicago 6

WHAT DO THESE INDUSTRIES HAVE IN COMMON?

They have all called on Ebasco for services involving engineering, construction, or business consultation. In addition to these nine major industries, Ebasco has served many others both here and abroad.

The help provided by Ebasco varies with the requirements of the client. One project may call for the complete design and construction of a new plant. Another may require assistance on new financing, space planning services, a marketing and distribution study; or perhaps an industrial relations program. Still others may include advice on insurance, on tax problems, or on accounting systems and methods.

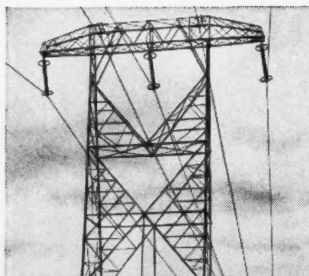
Whatever the problem, Ebasco applies to it the services of specialists . . . men of broad experience and recognized technical competence. Besides saving executive time, Ebasco saves you the expense of adding high-cost talent to your permanent payroll.



AVIATION 6 Companies Served



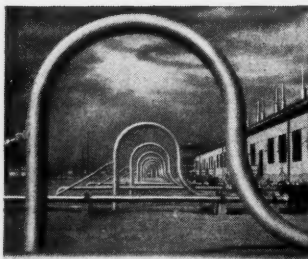
BANKING 10 Companies Served



ELECTRIC 146 Companies Served



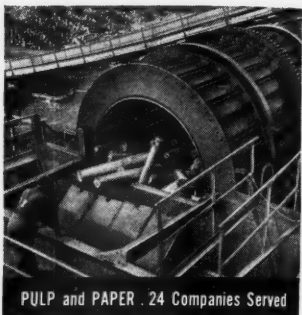
FOOD 16 Companies Served



GAS 91 Companies Served



OIL 22 Companies Served



PULP and PAPER . 24 Companies Served



RAILROADS 6 Companies Served



STEEL 10 Companies Served



Our booklet—"The Inside Story of Outside Help"—tells the full story of Ebasco special services and how they may be of use to you. For a copy, without obligation, write or phone Ebasco Services Incorporated, Dept. W, Two Rector Street, New York 6, N. Y.

NEW YORK • CHICAGO • WASHINGTON, D. C.

Appraisal • Budget • Business Studies • Consulting Engineering
Design & Construction • Financial • Industrial Relations • Inspection &
Expediting • Insurance, Pensions & Safety • Purchasing • Rates &
Pricing • Research • Sales & Public Relations • Space Planning
Systems & Methods • Tax • Traffic • Washington Office

*Ebasco Teamwork gets things done
anywhere in the world*





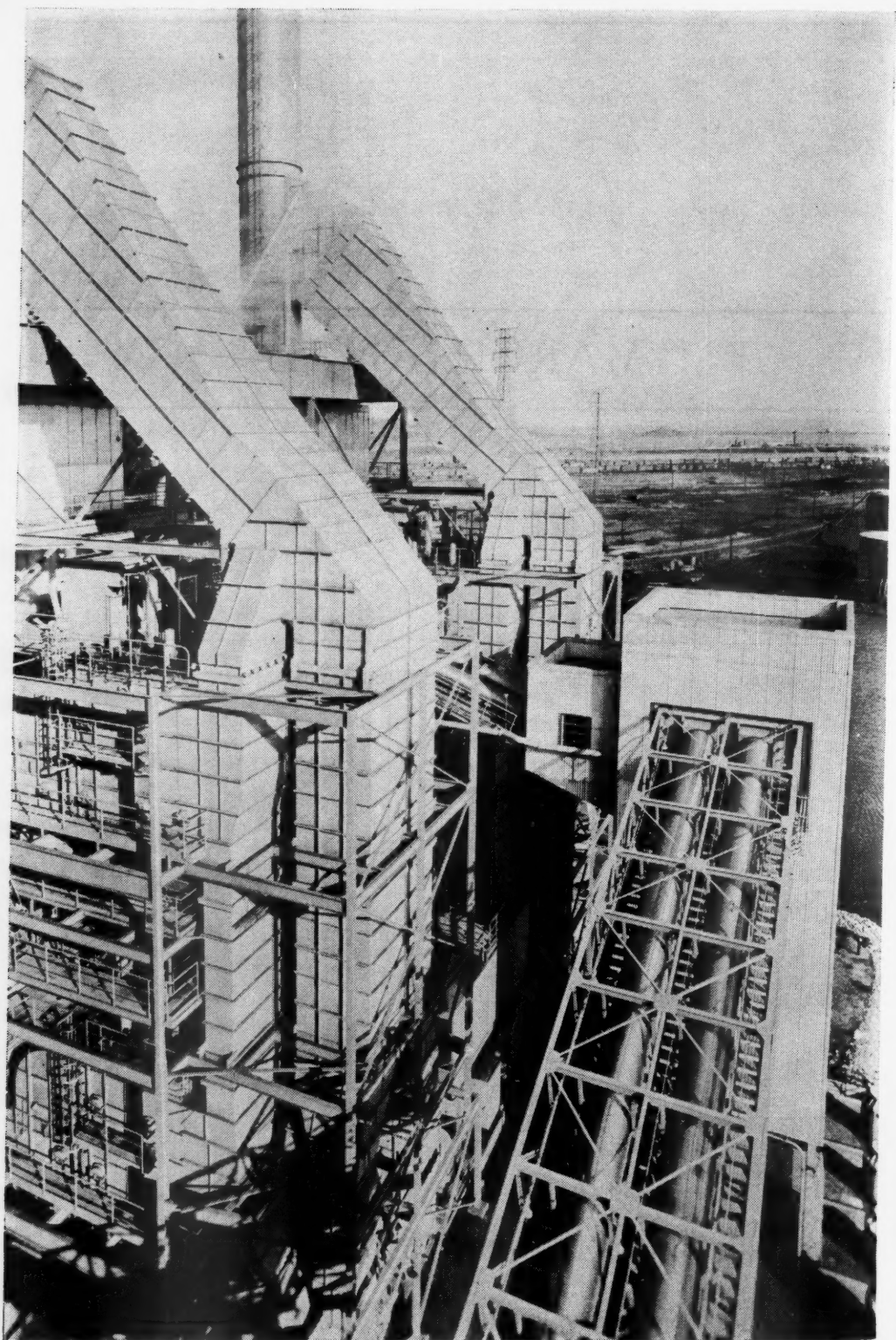
PUBLIC UTILITIES FORTNIGHTLY—MARCH 18,

UTILITIES

A.l.m.a.n.a.c.k

MARCH-APRIL

Thursday—18 <i>Pacific Coast Electrical Association, Engineering and Operating Sections, begin meetings, San Francisco, Cal.</i>	Friday—19 <i>American Water Works Association, Illinois Section, ends 3-day meeting, Chicago, Ill.</i> 	Saturday—20 <i>Association of National Advertisers ends meeting, Hot Springs, Va.</i>	Sunday—21 <i>Controllers Institute of America begins eastern conference, Washington, D. C.</i>
Monday—22 <i>Southeastern Electric Exchange begins annual meeting, Boca Raton, Fla.</i>	Tuesday—23 <i>Pacific Coast Gas Association-American Gas Association begin domestic gas research and utilization conference, Los Angeles, Cal.</i>	Wednesday—24 <i>American Power Conference begins, Chicago, Ill.</i>	Thursday—25 <i>New England Gas Association begins annual meeting, Boston, Mass.</i>
Friday—26 <i>Oklahoma Utilities Association ends 2-day annual meeting, Oklahoma City, Okla.</i>	Saturday—27 <i>Mississippi Broadcasters Association begins meeting, Biloxi, Miss.</i> 	Sunday—28 <i>Edison Electric Institute will hold annual sales conference, Chicago, Ill. Apr. 5-8. Advance notice.</i>	Monday—29 <i>Ohio Independent Telephone Association begins annual convention, Columbus, Ohio.</i>
Tuesday—30 <i>Iowa Independent Telephone Association will hold annual convention, Des Moines, Iowa. Apr. 6, 7. Advance notice.</i>	Wednesday—31 <i>Northwest Public Power Association opens annual convention, Tacoma, Wash.</i>	<u>APRIL</u> Thursday—1 <i>Electrical Industry Show, sponsored by Electrical Maintenance Engineers Association, opens, Los Angeles, Cal.</i>	Friday—2 <i>Louisiana Polytechnic Institute will hold annual instrumentation conference, Ruston, La. Apr. 8, 9. Advance notice.</i>



Courtesy, Public Service Electric & Gas Company

Coal Conveying System and Double-deck Precipitators
The New Jersey meadows form a background for the Kearny generating station.

Public Utilities

FORTNIGHTLY

VOL. 53, No. 6



MARCH 18, 1954

DETERMINATION AND RECORDING OF Property Exhaustion Costs

Stating the cost of plant investment which has been exhausted in terms of current dollar values has become one of the challenges of present-day public utility regulation, in the light of continued postwar inflation.

By FRANK L. GRIFFITH*

FOR the purpose of this statement there are taken as postulates the fact of decline in the purchasing power of the monetary unit in recent years, a matter having common acceptance, and the fact that reductions in the purchasing power of the monetary unit in which recordings of property cost have been made in the property accounts from year to year affect the interpretation, determination,

and recording of the costs of consuming or exhausting the service capacity of all of the property of the business making the record. A full, or, for convenient later reference, gross, recording of the property exhaustion costs in terms of current dollars would thus require and represent dollar value adjustment applied to a given period's share of the amortization of the recorded property costs.

Accepting the validity of the foregoing statements, there are some who urge recognition in rate regulation and accounting

*Vice president and comptroller, The Peoples Gas Light and Coke Company. For additional personal note, see "Pages with the Editors."

PUBLIC UTILITIES FORTNIGHTLY

of what they assert *should* be the gross effects of inflation as related to property costs recorded in the past upon the interests of the corporation's security holders, but without carrying the consideration along to a point of differentiation between the respective interests of the holders of equity securities and the holders of debt securities. Others take, as will be done here, an alternative position of urging determination, allowance, and recording of what *must* be the translation of the effects of inflation as applied to past property costs if the purchasing power contributed to the enterprise by the equity security holders, specifically, is to be maintained without either gain or loss in the process.

PHASED in another way in the hope that the respective positions will thereby be clarified, one group would ascertain the costs of property exhaustion in a given period in terms of current dollars and let the difference between the dollar figure representing that cost and the dollar figure representing simple amortization of original cost be accumulated in a "reserve," the exact nature and significance of which is not defined, substantially equivalent to a deferred credit item. The alternative position requires careful analysis of the significance of that figure which would be credited to such a reserve for any given period and disposition of that difference figure according to the logic disclosed by the analysis.

Perhaps the respective positions can be illustrated by consideration of another matter, in distinction from depreciation; *i.e.*, the matter of "return on" the property value. There are some who staunchly continue to feel that the return on the

value of a utility's property should be objectively ascertained without reference to the particular forms of security which were the source of the capital provided in the given case. Such a manner of ascertaining the amount of return would, of course, be contrary to present regulatory practice in virtually, if not actually, every regulatory jurisdiction in the United States. The actual practice involves consideration of the proportions in which the capital in a given instance has been provided by way of debt, on the one hand, and equity, on the other, the purpose of this distinction being to ascertain the extent to which the utility ratepayer will be *given* the benefit of "low-cost debt money" for the purpose of minimizing the rate at which the return on the over-all property value will be computed.

A CORRESPONDING position in respect to the treatment of inflation as applied to the determination of property exhaustion costs would put that determination on the same level, comparably, as would be involved in determining the return to be allowed on the value of property on a basis which did not forcibly transfer from the equity security holder to the utility ratepayer the benefits in respect to lower money costs derived from mortgaging the equity security holder's interest in the property. As a matter of moral right, it would be easy to adopt that stand in respect to what ought to be the manner of determining, comparatively, both property exhaustion costs and return on property value. Because, however, that manner of determining return on value does not prevail in any regulatory jurisdiction, so far as known, it is not feasible to look with any optimism toward adoption of that

PROPERTY EXHAUSTION COSTS

principle in the determination of property exhaustion costs, as that determination will affect the utility and its ratepayers.

CONSIDERATIONS of the kind immediately under discussion here are of rate-making character, not accounting, and have to do primarily with the manner in which the matter is dealt with in regulatory processes. The view is urged that by undertaking to attain in rate making such a morally proper goal as that just described, utilities would be in grave danger of failing to secure any reflection whatever of the effect of inflation in the ascertainment of property exhaustion costs for rate-making purposes.

In consequence, it has seemed to be imperative that principles be devised by which to determine the allowance the equity security holders in the aggregate *must* have if the purchasing power contributed to the enterprise by them is to be protected from erosion and gradual expropriation. This statement will undertake to outline, then, perhaps at greater length than may be altogether necessary, the basis for the development of views as to the necessities in respect to protection of the integrity of the purchasing power contributed by the equity security holders (believing that in the process it will be

shown that no "protection" can appropriately be sought in respect to the capital contributed on a debt basis).

WHILE accounting requirements in respect to the recording of property exhaustion costs do not run contrary to requirements for the determination of such costs for rate regulatory purposes, they are not wholly identical. Particularly to the point, here, is a belief that even though gross property exhaustion costs might be allowed in the fixing of utility rates, it would still be necessary that the accounting processes carry through and reflect an analysis of the results of that regulatory action as they affect the determination of "income" as distinguished from maintenance of the integrity of the purchasing power originally contributed by the security holders.

A corporation is an artificial creature representing an aggregate of interests on the part of holders of its securities, particularly those securities which are of equity character. The East Ohio Gas Company, for example, has a capitalization consisting entirely of common equity. That fact itself demonstrates, then, that no other kind of capital is essential to the existence of a utility corporation. The creditor acquires a position in the capital-



Q "It may be that, for a time, either the equity holder or the ratepayer may benefit from delay in the reconsideration of rates, but in the long run that which affects the net income of the equity security holder affects in like fashion the revenues required to be derived from the rates charged for utility service. As regards the stockholder and the ratepayer both, it is necessary to reflect in net income . . . all effects of any 'leverage' gained by inflation in periods of prosperity and, in like fashion, any loss during periods of deflation and consequently declining prices."

PUBLIC UTILITIES FORTNIGHTLY

ization of a public utility company only through what is *supposed* to be the voluntary action of its stockholders in entering into mortgage arrangements which result in the sale of bonds and consequent acquisition of cash by the debtor utility corporation.¹

PARENTHETICALLY, there is unhappily discernible a tendency on the part of regulatory bodies in recent years to consider, in ascertaining the return on property value to be allowed in the rate-making process, not only the relationship which exists in a given case as between debt and equity capital but to go even beyond that and fix a relationship which, though non-existent, the regulatory body thinks *ought* to exist in the particular instance, and to use the hypothetical debt portion of capital so arrived at as a means of minimizing the amount of return to be allowed on value in the particular rate case. Thus, what is supposed to be a voluntary action of the stockholders in entering into mortgage arrangements seems to be becoming less a matter of volition and more and more one of regulatory pressure and coercion.

¹ Referring again to The East Ohio Gas Company, with its 100 per cent equity capitalization, and, for contrast, to the Nebraska Power District with no equity capital, it is to be noted that both are extreme cases presumably justified in so being by unique circumstances in the particular cases. The same conditions which justify the all-equity capitalization of The East Ohio Gas Company make it necessary, if the position of its equity holders is to be truly conserved, that they be given the benefit of a gross recording of property exhaustion costs in terms of current dollars. Correspondingly, the all-debt position of Nebraska Power District means that so long as that condition prevails there is no equity position to protect. If, in the Nebraska instance, an equity be built up while the debt is being paid off, then the equity so achieved would represent the "gain" resulting from reflection of gross property exhaustion costs in terms of current dollars without allowance for the offset represented by the long-term debt hedge.

It is unnecessary to belabor unduly the point of the identity of the corporation with the interests therein of its stockholders but it may yet be worth while to note for the purpose of what follows that the business of any ordinarily financed public utility corporation is conducted under the direction of a board of directors elected solely by the stockholders; that the directors are responsible solely to the stockholders (among the holders of various kinds of securities); that annual reports of corporations are customarily addressed to the stockholders; that annual audit reports are customarily addressed to the stockholders; that the basic principle of organization of the items constituting the corporation's balance sheet is substantially to set off against or subtract, visually, the indebtedness from the aggregate of assets for the purpose of ascertaining an end result represented by a presentation of stockholders' equity in the form of paid-in capital and retained earnings. Reserves exist only for the purpose of differentiating between the return of equity capital and earnings thereon. Income statements are designed to present specifically, net income of benefit to the equity security holder.

IN the matter of rate regulation, the interests nominally opposing each other are the ratepayers, on the one hand, and the equity security holders on the other. As already mentioned, the only point of concern in rate regulation as regards long-term or any other kind of debt and the creditors in reference thereto, is as to whether or not the ratepayers are benefiting in satisfactory degree from the lower annual costs of debt capital, as differentiated from equity capital. Thus the



Accounting Requirements and the Regulatory Base

“WHILE accounting requirements in respect to the recording of property exhaustion costs do not run contrary to requirements for the determination of such costs for rate regulatory purposes, they are not wholly identical. Particularly to the point, here, is a belief that even though gross property exhaustion costs might be allowed in the fixing of utility rates, it would still be necessary that the accounting processes carry through and reflect an analysis of the results of that regulatory action as they affect the determination of ‘income’ as distinguished from maintenance of the integrity of the purchasing power originally contributed . . .”

corporation fundamentally represents, both in rate making and accounting, its equity investors.

Returning now to the point that a gross recording of the property exhaustion costs in terms of current dollars can, or could, be made, it is urged that, both in utility accounting and rate making, the significance of that recording must be refined to a point indicative of its measure as brought down and applied to the equity investor. By comparison, it is significant that “net income” is not arrived at until after reflection of the interest and other costs attendant upon the maintenance of debt capital. When net income is arrived

at, it is significant and interpretable solely in reference to the equity investor. A somewhat similar behavior and interpretation are believed to be required in making transition from a gross recording of property exhaustion costs in terms of current dollars to the correct reflection thereof in net income, necessarily in its relationship to the equity investors only.

THE following considerations are suggested in connection with that process of translation from gross property exhaustion costs to the significance thereof to the equity investor. Suppose (as is said to be the case in France) a corporation

PUBLIC UTILITIES FORTNIGHTLY

were required by law to pay off its long-term debt in terms of current dollars, to be arrived at by applying dollar value adjustment indices to the original dollars of debt as of the time the indebtedness was incurred.

It would rather clearly follow that payment of the indebtedness on such a basis would effectively withdraw from the corporation's assets the equivalent of the dollar value adjustment applied in calculating the amount required to recover property adjustment costs in terms of current dollars during the period in which the indebtedness existed. Such a withdrawal would leave for the equity holder that part of the effect of recorded property exhaustion costs in terms of current dollars which was commensurate with the relationship of the equity to the total capital during the period in which the debt existed.

THE idea of carrying as a reserve the excess of property exhaustion costs recorded in terms of current dollars over the dollars which correspondingly would represent amortization of original cost only tends for the moment to obscure the end result being attained. Such a reserve is actually only a deferred credit. Suppose that process were carried on until the indebtedness had been paid off. At that time there would exist no question as to the extent of the equity holders' interest in the enterprise, but a reserve so built up should not be looked upon as a conservation of any interest other than the aggregate interest of the stockholders.

To the extent that the stockholders' interest, including the reserve, exceeded the adjusted dollar value of the equity money contributed from time to time in the past by stockholders, it would have to be con-

cluded that the stockholders had actually *gained* through the consummation of the whole procedure involved in building up the reserve. Whether or not the stockholders were entitled to that gain is beside the point here, the question here being one as to the recordings required to *preserve*, not augment, the interest of the stockholders. To the extent that the stockholders' interest is augmented—*i.e.*, that there is *gain*—that end cannot possibly be achieved properly through the recording of what purports to be a cost. To the extent of the gain, the alleged cost does not exist.

THE point involved in the immediately preceding statements is that, if it be proper to record gross property adjustment costs in terms of current dollars, it is necessary, for the purpose of ascertaining *net income*, both for the purpose of the equity investors and ratepayers, to reflect in some fashion any offset thereto represented by the portion of the gross costs which will not, in effect, be paid over to those who provide long-term debt capital.

Suppose, as a parallel example, it be assumed that the use of capital of any kind involves some sort of a gross cost, taking for the purpose, 6 per cent per annum. At some stage it would seem appropriate, then, to record a gross cost for the use of capital in an amount equal to 6 per cent thereof.

Since it would not follow that parts of the amount so recorded would be paid over to the bondholders and the equity security holders in sums proportionate to the parts of the total capital furnished by them, respectively, it would follow that the equity holder was not being limited to 6 per cent, but was in fact having reflected

PROPERTY EXHAUSTION COSTS

in his earnings the difference between the 6 per cent and the actual cost incurred annually in carrying the indebtedness. The amount of the offset, translated as between the debt portion of the capital and the equity portion, would depend upon the ratios in which the two kinds of capital had been provided.

IT may be that, for a time, either the equity holder or the ratepayer may benefit from delay in the reconsideration of rates, but in the long run that which

affects the net income of the equity security holder affects in like fashion the revenues required to be derived from the rates charged for utility service. As regards the stockholder and the ratepayer both, it is necessary to reflect in net income, or in the aggregate of the revenues which the utility is entitled to obtain through the operation of rates, all effects of any "leverage" gained by inflation in periods of prosperity and, in like fashion, any loss during periods of deflation and consequently declining prices.



Open House at a Jungle Plant

"AT Kampala in Uganda, Africa, there is a large hydroelectric development which is to be opened officially next April by Queen Elizabeth. In preparation for the Sovereign's visit, a royal retiring room had been prepared.

"Well, the other day a man working at the plant looked into the retiring room and felt it necessary to report as follows:

"I say, there is a hippopotamus in the retiring room."

"The report proved quite accurate. There was a hippopotamus there. Not only was it there but it then thought it would like to go to the control room, which it did. A man in the control room essayed to chase it out. The hippopotamus had other ideas. It chased the man out.

"It then ambled to the visitors' gallery where it contemplated the shining machinery. After getting its fill of this the animal then went back to the Nile, the total damage being the breaking of two windows.

"Perhaps all of this ought to be the basis of some observations about the boredom that afflicts hippopotami or about the contrasts between modern machinery and the raw African jungle. Or American utility men might reflect that state and federal regulatory commissions are after all preferable to a couple of tons of hippo on the hoof.

"However, we are not inclined to embellish the tale."

—EDITORIAL STATEMENT,
The Wall Street Journal.



Capital Cost and Fair Return

Part II. *The Meaning of Competitive Cost and Competitive Return*

In the first article in this series the various meanings of cost of capital were noted. Standards of rate regulation, including the "capital attraction standard," which have been asserted as guides in the past, were critically surveyed and the basic purpose of regulation as an alternative to free competition was reviewed. In this instalment, the author develops the meaning of competitive costs and competitive return under varying circumstances.

By J. RHOADS FOSTER*

Meaning of Competitive Cost

IN a freely competitive society, the prices of goods and services tend to correspond to the current cost of producing the goods and services. If regulation is to function as a substitute for competition, and seek the ends of effective competition, returns are properly to be fixed at current competitive cost, including cost of capital. In other words, public utilities will be allowed opportunity to earn returns generally equal to those alternatively available to investors under conditions of fair competition from past investments in other industries of corresponding investment risk.

This is the standard of rate making that was set forth by the Supreme Court

*Managing partner, Foster Associates, utility economists and consultants.

in both the Bluefield and the Hope cases. Its meaning is worthy of careful consideration.

THE competitive rate of return on capital may be visualized as the governor that tends to stabilize prices and production in accordance with the needs and the purchasing power of the consuming public. Therefore, a fair return means the kind of return that tends to exist in competitive enterprise.

The forces of a competitive, private enterprise system express themselves through the market. We trust prices to do what a dictator would try to do in a controlled economy—to determine the proper amount of capital and other resources to be employed in different lines of industry, to see that goods go where they are most

CAPITAL COST AND FAIR RETURN

wanted at the time when they are most wanted.

IT may be helpful to consider the way in which the market operates to make effective "the law of supply and demand." Let us consider the market for bicycles.

At a particular time the price is \$50 each. At this price the manufacturers and dealers are able to dispose of all the bicycles they make. At this price all the people who are willing to pay at least \$50 for a new bicycle are being supplied. Supply and demand are in balance at the price of \$50.

Assume that manufacturers raise prices, say to \$65, through government edict. The higher price will stimulate a larger supply of bicycles, unless the supply is limited by quotas and other governmental controls. The higher price will yield much greater profits or "returns" on capital invested by the existing makers. This condition will induce other people to enter into, and invest capital in, the bicycle business.

But bicycles are not worth more to the customers merely because the price is higher. Some people would go without bicycles who would buy if the price were \$50. Others would continue to ride old ones and repair them as long as there is life in them. Some might literally take to horseback.

At the \$65 price more bicycles would be available but fewer would be sold. A part of the output would go begging.¹ If the price support were withdrawn, the price of bicycles would fall back to \$50, where supply and demand are in balance.

¹ The existing surpluses of agricultural products, created by the price support programs, are indicative of this economic behavior. The wheat holdings of the federal government, for example, including wheat under loan, amount to 840,000,000 bushels, or enough to last the nation for more than a year.

Then the least efficient producers would have to go out of business, and probably all producers would have to curtail output.

A SIMILAR unbalance would develop if the price were lower than \$50. Assume that government authority set the price at \$35 per bicycle. More people would hasten to buy bicycles, unless the demand created by the uneconomic pricing were limited by rationing. Others would scrap old bicycles and try to buy new ones, and still others would scrap alternatives such as public transportation or horses. The demand would be larger than at the price of \$50.

On the other hand, few, if any, of the manufacturers could make bicycles for \$35. They would curtail production, unless, as in the case of public utilities, continued production were made a legal duty. Some of the weaker producers might go out of business altogether. The equipment for making bicycles would not be replaced when it wears out or is otherwise destroyed. The supply would thus be reduced in the face of an increased demand.

The way of the free market is to balance supply and demand by means of a freely established market price. That is, under competition, prices tend to cover all of the necessary costs of production, including the current cost of capital invested in efficiently producing plant. This does not mean that investors in public utilities would be assured a competitive return upon the capital they have invested. To do so would give them a position of special privilege. A great deal of money is lost in the competitive field, as has been true also of some public utilities. Prudently invested capital in public utilities should be given an opportunity to earn a commen-

PUBLIC UTILITIES FORTNIGHTLY

surate return, if it can, with careful management.

A FAIR competitive cost standard reflects whatever may be the gains available from better techniques and increased productivity. If utility rates were now to be fixed to reflect the competitive cost of the capital—that is, economic cost as distinguished from a nominal-dollar cost—the result would be a lower real cost to the consumers than before the inflation. More efficient production facilities and a better utilization of existing facilities have resulted in a continued decline in the real cost of most utility services, particularly of electric service. Consumers should receive the advantages of the available economies in periods of either high or lower prices. But it is futile to expect increased volume and efficiency fully to offset increased costs in an era of price inflation.

Further, labor and the owners of the property should have some share of the gain from increased productivity. Otherwise, the incentives for efficiency and technological improvement may be destroyed.

THE competitive cost standard is obviously equitable. Fairness in earnings regulation concerns particularly the "sunk" investment that is dependent upon the fairness of the regulatory policy and practice. There is no unfairness if regulation brings rates to the level of economic

cost and provides for the past investment an opportunity to earn a return equal to, but no more than, that being earned on other investments of similar risk. That goal satisfies the standard of economics and at the same time that of equity.

But the advantage to the general public goes further. The justification of the whole system of private enterprise, which we call Capitalism as distinguished from Socialism, lies in the fact that this pricing process brings about the best economic results.

If the factors (labor, material, capital, etc.) which go into the production of a utility service cost \$10, it is because those resources could, if free for dedication to the best possible uses, produce other goods and services which are worth \$10 to consumers. That is how things work in a competitive economy. The price system guides available resources into the most productive channels.

The continuous shifting of labor and capital from the less to the more profitable uses means that the relatively more intense wants will be satisfied by a given expenditure of productive resources. The result is the maximum possible satisfaction of human wants at given levels of resources and technology.

NOW if the utility service, the cost of which is \$10, were priced at more than \$10, the price includes an element of monopoly profit. Where the prices of



Q "In a freely competitive society, the prices of goods and services tend to correspond to the current cost of producing the goods and services. If regulation is to function as a substitute for competition, and seek the ends of effective competition, returns are properly to be fixed at current competitive cost, including cost of capital."

CAPITAL COST AND FAIR RETURN

utility services reflect excess returns arising out of the possession of an exclusive franchise to serve, the result is exploitation of consumers for the benefit of a favored social class—the owners of the utility property.

But if the utility service with a cost of \$10 is priced at less than \$10, the deficiency comes out of the balance of the revenue available as a return on capital, since all other costs of service must first be provided. The cost of capital is measured by what the capital would have been able to earn elsewhere. The owners of the utility property are thus denied returns equal to those available from an alternative employment of the capital in other businesses of similar risk. The result is exploitation of those who have committed capital to the public utility, for the benefit of a favored social class—the consumers of the service.

MOREOVER, society as a whole is the loser. The loss to investors is evident. As to the consumers, their loss is much less evident, but none the less real. If the price arbitrarily were reduced from \$10 to \$6, consumers would buy more of the utility service than they would at the price of \$10.

However, the additional service is, of course, worth less than \$10, else it would have been bought without the price reduction. The same resources, costing \$10, could be used to produce goods and services which would be priced at \$10 in the market and would be worth \$10 to consumers. Thus, the public has lost something worth \$10—in the other goods and services that could have been produced by the optimum use of resources, and has gained something worth less than \$10—

which means a *net loss for the general welfare.*

The Dollar As the Unit of Measurement

UTILITY regulation serves its basic purpose only if it makes revenue equal to the economic cost of service, including a fair return. How are these things measured? In *dollars*, of course. The *dollar* is the *unit of measurement*.

Measurement always implies the relationship between a standard and the object to be measured. In the case of physical quantities, it is possible to maintain absolute uniformity in the standards for measurement. For example: To insure absolute uniformity, the basic standard for the measurement of distance in this country, a metallic bar, is kept in an air-conditioned vault by the United States Bureau of Standards, under constant conditions of temperature and humidity. The yard is the basic unit of measurement. A foot is always one-third of a yard, and a statute mile is always 5,280 feet or 1,760 yards.

But we cannot put the dollar in an air-conditioned vault to prevent it from changing in size. A standard of value cannot be measured by the distance between two markings on a metal bar. The value of a dollar is necessarily measured by its purchasing power, by what it will buy in terms of groceries, refrigerators, or houses. After all, a dollar is merely a symbol representing the power of its owner to acquire, in exchange for it, a certain quantity of goods and services. But this power changes from time to time; that is, the quantity of goods and services changes.

Since pre-World War II, higher general prices reflect a dollar of smaller size, as shown in the diagram at top of page 344.

PUBLIC UTILITIES FORTNIGHTLY



The 1953 dollar is about half the size of the old dollar because it can purchase only half as much and therefore is worth only half as much. With the larger prewar dollars, a utility company could buy twice as much of the things it needs—labor, materials, use of capital, as it can with the same number of 1953 dollars.

Since pre-World War I, higher general construction costs reflect 25-cent dollars, as shown in the diagram below.

The 1953 construction cost dollar is a 25-cent dollar because it can purchase only one-fourth as much as prior to World War I.

The purchasing-power size of the dollar has changed, sometimes slowly and sometimes rapidly. Prices fluctuate, but over the long term tend to rise. In the present circumstances, we hope for a semistabilization of the dollar near its present level.

AND as the purchasing power of the dollar shrinks, *the dollar itself shrinks*—for a dollar is the purchasing power that it represents. Goods and services exchange for more of the smaller dollars, but the values of the goods and services are not thus increased. Prices are higher because the same old values are expressed in a



CAPITAL COST AND FAIR RETURN

larger number of the smaller present dollars.

Dollars have no value independently of the things they will buy. Economic society cannot lift itself by bootstrap money. When the dollar will buy only half as much, it takes twice as many dollars to equal

the same real wages of labor,
the same real incomes from investments,
the same real values of things, including goods, services, and productive property.

A rise in the price of a given kind of property may reflect either
an increase in real value, or
merely a decrease in the value size of the dollar.

A rise in price that is less than in proportion to the decrease in size of the dollar represents a decrease of real value.

Valid Measurement

THE dollar should not be used to measure wages, or values of properties, or incomes from investments, without adjustment for changes in the size of the dollar as the unit of measurement. The adjustments are, in fact, made for most business and governmental purposes. It is absurd to make economic comparisons in terms of a unit of measurement which itself changes more than do the facts to be observed and measured.

To illustrate, if the question at issue were:

What was the increase in gross average weekly earnings of production workers in manufacturing industries in the United States from 1939 to June, 1953?

The report of the Bureau of Labor

Statistics shows that average earnings increased from \$23.86 to \$71.63.

But no one would properly say that real wages have increased by 200 per cent or that the average wage earner's family is three times better off. Actually, expressed in constant dollars of 1939 purchasing power, these earnings were \$37.16 in June of 1953, so that real wages had increased by 56 per cent.

Or, the problem might be:

Where a property for which one paid \$1,000,000 in 1939, representing its then value, has depreciated by 20 per cent and the cost of constructing an equivalent property has doubled, what is the present sale price which would represent no loss of value less experienced depreciation?

If the size of the dollar as the unit of measurement were unchanged, the answer would be \$1,000,000 less \$200,000, or \$800,000. But since the unit of measurement has shrunk to one-half of its former size, any amount less than \$1,600,000 would represent a reduced value.

The same is true of incomes from properties or investments. A return that is increased in proportion to the decline in the value of money is not a higher return than before, and a return that is the same number of nominal dollars is a reduced real income.

UTILITY regulation serves its basic purpose only if it makes revenue equal to the economic cost of service, including a fair return. It is obvious that the revenue level permitted by the regulatory authority is measured in current monetary units—here, dollars. It is equally obvious that the return which investors will realize

PUBLIC UTILITIES FORTNIGHTLY

out of current revenues will also be realized in dollars of current value.

The confusion about measurement of the return, however, arises out of the illusion that the dollar is a constant unit of measurement.

That illusion is a most persistent cause of uneconomic and inequitable results in public utility regulation:

Assume two substantially identical natural gas pipelines built by separate companies. The first line was built in 1939 and cost \$60 per MCF of daily capacity. The second was built in 1950 to serve generally the same market area and cost \$120 per MCF of daily capacity. What is the comparative cost?

To anyone subject to the illusion of the constancy of the dollar, the second pipeline "costs" twice as much as the first, although the two lines are identical in terms of the amounts of resources consumed in their construction and are equal in their capacity to serve the public.

When we use dollars to measure revenue against cost, we should be absolutely sure that the dollar has a uniform meaning. If revenue amounts to 1,000 little dollars and cost is 1,000 big dollars, they are not equal. The same is true if revenue consists of 1,000 little dollars and cost consists of 800 equally little dollars plus 200 big dollars. *All of the dollars in two amounts that are to be compared should be uniform in size.*

A RATE base for the purpose of utility rate regulation which is nothing more than an expression of the same old value in a larger number of smaller dollars means no appreciation or increase of economic value and leaves the investors no better off than before.

On the other hand, a rate base that is not adjusted for the decline in the value of money results in an unfair indirect expropriation of a portion of the fair value of the utility property for the benefit of the users of the utility service. As a matter of regulatory policy, and to avoid any extreme advantage or disadvantage from "trading on the equity," the adjustment for change in the value of money may reasonably be limited to some equivalent of the common stock component of the allowable return.

Earnings on Past Investments in Other Enterprises Having Corresponding Risks

WHAT, then, is a fair return corresponding to the competitive cost of capital? The question is answered in two parts.

It is a return corresponding with that being earned in competitive enterprises of corresponding risk:

First, in that the percentage return on invested capital is similar, and

Second, in that both returns and investment are measured in current-sized dollars.



Q "THE original cost method of rate regulation discriminates against owners of utility properties, by treating them as though they are creditors instead of owners. Clearly, the owners of utility properties are given no status of 'special privilege' when they are treated in a manner consistent with the status of other property owners."

CAPITAL COST AND FAIR RETURN

BEFORE we try to apply these principles, a simple problem may help as a sort of orientation. Here are three industrial plants, each owned by Mr. Enterprise, a manufacturer of nails. (See diagram, page 348.)

They look alike because they are alike. Each can produce exactly the same quantity of exactly the same product with exactly the same efficiency. They produce for the same market. There is only one difference: Plant A was acquired before the inflation at a cost of \$500,000, Plant B cost \$1,000,000, while Plant C was built recently at a cost of \$2,000,000. Which plant will earn the larger return *today*? Which plant would be worth more to a prospective buyer *today*?

Perhaps the questions answer themselves. The price of the competitive product or service is a uniform price in the given market, regardless of whether the product is produced by use of the older or the newer facilities. Mr. Enterprise doesn't say to his customers:

These nails were produced in Plant A and I sell them at 11 cents a pound, since that price will yield a return of 10 per cent on the original cost of that plant, amounting to 500,000 old-cost dollars. However, this other part of my inventory comes from Plant B and the price is 13 cents a pound. I have still other nails of equal quality but they are priced at 15 cents, since that price is required to provide a return of 10 per cent on the original cost of Plant C amounting to 2,000,000 smaller dollars.

No. The competitive price is a uniform price. The three plants will tend to earn the same return and to have an identical value to a prospective buyer and the cost

of the capital currently used is also equal as between the three plants.

FOR example, Plant C was constructed at a recent date. Conditions are but little changed. The original cost of this plant, determined by arm's-length bargaining, is likely to be the best available evidence of its present fair value.

This presumption does not exist with respect to Plant A and Plant B. Let us assume that, although Mr. Enterprise paid \$500,000 for Plant A in a period of fallen prices, it originally cost \$1,000,000 to construct. However, the value of the plant was what Mr. Enterprise paid for it and at the time of purchase he did not expect to earn a return on \$1,000,000, the cost to the predecessor owner. Why not? Because anyone could come along and compete on equal terms—with an investment of only \$500,000.

That cost is not value is a truism. Past cost is never the same as value, *fair* or otherwise, except as a coincidence, but may be useful evidence of value. Neither is present cost the same as value; a productive property may not be worth reproducing.

If Mr. Enterprise had recorded on his books the \$1,000,000 of cost to the predecessor instead of his own cost of \$500,000 (which he would not have done), the book cost would not have measured either the earning capacity or the value of the property. Neither the costs incurred to supply a utility service nor the present value of property are a dollar more or less because of what is or is not accounted for as the cost.

PRICES now having been inflated, the cost of providing productive plant is much

PUBLIC UTILITIES FORTNIGHTLY

higher than when Plant A was bought, or Plant B was constructed. Plant C cost \$2,000,000 to construct. Other factors being equal, Plants A, B, and C are all in the same boat. Each can do the same work with equal efficiency. The market price of the product is uniform and the normal return is approximately the same.

In a competitive society, past costs are "water over the dam." It is current costs of creating productive assets that are reflected in the price of goods and services and in the earnings of invested capital. The earnings of older facilities of equivalent productive capacity are no less than the earnings of new plant and equipment provided at a high-cost level. The present value of Plant A and of Plant B is the same as that of Plant C and is the present cost of providing an equivalent productive capacity.

Measurement of the Return

IT will be recalled that, in the Bluefield Case opinion, and as restated by Mr. Justice Douglas in the Hope Case, the competitive cost principle was expressed somewhat as follows: *A utility should have an opportunity to earn a return equal to that being made at the time on investments in other business enterprises having corresponding risks.*

The reference is necessarily to any alternatively available investment opportunities of corresponding risks, whether

in public utility or nonutility enterprise. "Other business enterprises" means competitive as well as regulated enterprise. To assume that the court meant only "other public utilities" is to assume that the court would beg the question of reasonableness. No test of reasonableness of given regulatory policies, methods, or formulae can be provided by reference to the results of their application to other public utilities. The investor is not coerced in his survey of alternative investment opportunities or restricted in his choices. The judicial standard of reasonableness—that is, competitive cost—is equally broad. It does not involve a vicious circle of cause and effect.

The term "investments" obviously means at any given time the amounts of capital that have been invested, expressed in dollars of the purchasing power existing at the dates of investment, since that is the basis of accounting and financial reporting. This is, of course, the generally accepted meaning of the term.

THUS, with reference to the three industrial plants owned by Mr. Enterprise, it was assumed that the investment is \$500,000 for Plant A, \$1,000,000 for Plant B, and \$2,000,000 for Plant C, or a total of \$3,500,000.

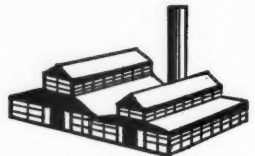
Assume that investors now require a return of 10 per cent as payment for the use of capital and compensation for in-



MARCH 18, 1954



348



CAPITAL COST AND FAIR RETURN

vestment risk. The annual cost of the capital represented by Plant C is \$200,000, or 10 per cent on the \$2,000,000 of capital.

It is established that the to-be-expected return is the same for Plants A and B as for Plant C—a total of \$600,000.

The capital which would be required currently to provide the productive facilities is the same for each of the three plants: \$2,000,000, or a total of \$6,000,000 for all three.

Furthermore, the return of \$600,000 corresponds to that being earned on investments in other business undertakings of similar risk, since the rate of return of 10 per cent on the current cost of providing the "facilities" is required to attract the capital from alternative uses. For a public utility the cost per dollar of capital is seldom as high as 10 per cent. It might be 6 or 6.5 per cent, but the principle is the same.

How is the competitive return to be measured or expressed? It obviously may be expressed in dollars—the \$600,000 in the illustration. The return also needs to be expressed as a rate of return on investment or on the value of the productive assets.

THE rates of return on investments have only limited significance for purposes of analysis or comparison, unless the investments are expressed in

comparable dollars. The total investment, or book cost of plant, is expressed in dollars of different size. The total for the three plants is \$3,500,000. The competitive return is \$600,000, amounting to 17.1 per cent on the book investment. (See table below.)

The 17.1 per cent is a mere arithmetic ratio of present return (expressed in current dollars) to a base which is a mixture of noncomparable dollars of unlike size. The base includes Plant A, for which the recorded dollars have four times the purchasing power of those recorded as the cost of Plant C. In the case of Plant B, the recorded dollars are twice as large as in the case of Plant C.

The percentage ratio of 17.1 per cent, like a number of oranges divided by a number of apples, doesn't measure anything. It is related to neither the cost of capital (return required) at the time of original investment, nor to current cost of capital (both assumed to be 10 per cent for purposes of the illustration).

EACH of the three plants has the same income-producing capacity and the to-be-expected return is the same for each. But the return expressed as a percentage of investment is 40 per cent for Plant A, 20 per cent for Plant B, and 10 per cent for Plant C, the wide differences among the percentages being explained simply by the change in the size of the dollar since



	<i>Plant A</i>	<i>Plant B</i>	<i>Plant C</i>	<i>Total for Plants A, B, and C</i>
Investment (nominal capital and book cost of plant)	\$500,000	\$1,000,000	\$2,000,000	\$3,500,000
Return at 10 per cent of value ..	200,000	200,000	200,000	600,000
Rate of return on investment ..	40.0%	20.0%	10.0%	17.1%

PUBLIC UTILITIES FORTNIGHTLY

the respective dates of investment. The composite rate of return on investment is 17.1 per cent, but this percentage rate is determined by what happened to be the purchasing power of the dollar at the several dates of investment. If all of the investment had been made currently and thus had reflected the current cost of the productive assets, the rate of return on investment would then be 10 per cent. In other words, the rate of return on investment is 17.1 per cent and the rate of return on value is 10 per cent.

WHAT is the application of this illustration to the determination of a fair return to a public utility enterprise?

No one would suggest that the rate of return of 17.1 per cent on nominal book investment ought to be applied to the present value of the plant (capital expressed in current dollars) in order to measure the fair return. The result, a return of \$1,026,000, would be more than the return expected and required by investors and more than the current cost of the capital used in the enterprise.

It is equally improper to take the 10 per cent—the current return related to the capital expressed consistently in dollars of current value—and apply that rate of return to a base measured in noncomparable past-cost dollars of unequal meaning. The result, a return of \$350,000, would be a substantial understatement of the economic cost of capital or of a fair return.

This principle was expressed as fol-

lows by the "Jackson Brief" in the *Driscoll v. Edison Light & Power Co. Case*² before the Supreme Court of the United States (October term, 1938, *Brief of the United States, Amicus Curiae*, pp. 31-32):

It would be proper and consistent to apply the rate of return on investments in industries in general (with elimination, of course, of speculative profits) to the *investment* in public utilities. But it distorts the comparison and leads to double compensation when prices are high, to apply the rate arrived at in the manner indicated not to investment but to a base influenced by high prevailing prices. The rate of return measured by investment should be applied to investment, but only a rate of return on "value" should be applied to value; the two rates should not be confused.

The principle would be the same if the circumstances were such that the value of money had *increased* since the dates of investment.

ASSUME that the circumstances were the reverse of those assumed in the preceding illustration, so that the rates of return on investment were as indicated in the table below.

The rate of return of 4.3 per cent on nominal book investment is clearly not a measure of a fair rate of return to be applied to the present value of the plant.

² 28 PUR NS 65.

	Plant A	Plant B	Plant C	Total for Plants A, B, and C
Investment	\$2,000,000	\$1,000,000	\$500,000	\$3,500,000
Return at 10 per cent of value ..	50,000	50,000	50,000	150,000
Rate of return on investment ..	2.5%	5.0%	10.0%	4.3%

CAPITAL COST AND FAIR RETURN

The result, a return of about \$65,000, would be a substantial understatement of the economic cost of capital or of a fair return. On the other hand, it is equally improper to take the 10 per cent — the current return related to the capital expressed consistently in dollars of current value, and apply that rate of return to a base measured in noncomparable past-cost dollars of unequal meaning. The result, a return of \$350,000, would be a substantial overstatement of the economic cost of capital or of a fair return.

The Original Cost Formula

THE preceding analyses of the relevant principles provide the guideposts for a considered appraisal of the original cost formula of rate regulation, which has been adopted in one form or another by a majority of regulatory commissions. This formula uses as the rate base the original cost of utility property, as of the date when first devoted to public service, without adjustment for the change in the size of the dollar after that date.

The rate of return applied to this kind of a rate base is generally measured in terms of some variation of "cost of capital."

The cost per dollar of debt and preferred stock capital, used as evidence, is sometimes the historically experienced cost and sometimes the estimated current cost to the given enterprise. During the wartime and postwar years of very low interest rates, when the current cost of debt and preferred stock capital was typically below the experienced costs, there was a tendency to base the rate of return on current cost evidence. The level of interest rates has now increased and for many companies the experienced cost of

debt and preferred stock capital is below the current cost of replacement or of additional capital. In this situation there has been a tendency on the part of some commissions to use the experienced cost as evidence of a fair rate of return. The regulatory process would become suspect and lose investor confidence if, under changing circumstances, it were to use whatever combination of formulae that provides the smallest return on utility investment.

In major part, however, the cost of capital used as evidence of a fair rate of return always reflects the estimated "current cost of capital" as at the time of the proceeding, since the evidence of investors' requirements of return from common stock investments invariably is on a current, although not necessarily a "spot," basis.

THE original cost formula of rate regulation is obviously inconsistent with the competitive cost standard. It makes no adjustment for the experienced change in the size of the dollar as the unit for measurement of investment values and returns. It uses, as the measure of a rate of return, a capital cost rate measured in terms of value, and relates this rate of return to an original cost or investment rate base expressed in noncomparable dollars.

This original cost formula is sometimes rationalized on the ground that all the changes in the economic environment are reflected in cost of capital and thus in the allowed rate of return. The fact, however, is that no long-term tendency exists for value of money (that is, general price level) to bear any definite relation with investors' return requirement or the capi-



Underpricing Service by Government Fiat

"THERE is no moral justification for expropriation of the values of utility property, by giving something to consumers at the expense of the owner-investors, even though it is done indirectly as the result of inflation. Underpricing of commodities or services by governmental fiat does not add to the general public welfare, but does provide a subsidy for one segment of society at the expense of another social segment. Justification cannot rest upon the possibility that the process will be reversed at some future date, so that investors may then gain at the expense of consumers."

tal cost rate. A rate of return based on cost of capital makes no adjustment for either inflation or deflation (see the preceding discussion of the capital attraction standard):

The view that the market cost of money automatically compensates for realized inflation is a simple fallacy arising out of a misunderstanding of the theory of the relation between money interest and prices.³

The formula thus discriminates against the owners of utility property and treats them as a class apart from other owners of property in our economy.

³"Rate of Return and the Value of Money in Public Utilities," by Walter A. Morton, *Land Economics*, May, 1952, p. 113.

ANOTHER invalid defense of the original cost formula is provided by reference to the experience of creditors: "Bondholders have been unfairly treated by inflation and have experienced reduced real incomes or have lost a part of their capital; why should utility investors ask for 'special privilege'?"

This analogy is false because it disregards the difference in effect of change in the value of money on the respective positions of creditors and owners of property.

All creditors, including lenders to public utilities and other business enterprises, are injured by a decline in the value of money, since they contract to receive a fixed number of dollars, as periodic inter-

CAPITAL COST AND FAIR RETURN

est or repayment of principal, regardless of the value of money at the dates of payment. On the other hand, the creditor stands to gain if the value of money should rise. The position of the borrower is always the reverse; he takes the risk of a rise in the value of money and stands to gain from a loss of purchasing power.

It may be agreed that creditors, including bondholders, are treated badly by a society that permits a substantial indirect loss of income and capital through the ravages of inflation. However, this is a much broader problem, beyond the capacity of any given regulatory commission to solve.

THE owner or borrower in our competitive society is not in a position corresponding to that of the creditor, except to the extent that he is put there by governmental controls. The owners of all other kinds of property, including buildings, lands, productive equipment, and all other equitable interests in goods and resources, have had their interests restated in current dollars to the extent that the demand for and supply of these goods (and thus their real values) have not changed. In fact, the position of the owner-borrower is the reverse of that of the creditor. The *disadvantage* experienced by creditors is reflected in a corresponding *advantage* to owners who are borrowers, since the payments to creditors required by existing contracts are a reduced real burden.

The readjustment to the changed size of the dollar runs through the whole of our competitive economy, excepting only the interests of those who have contracted to receive a fixed number of nominal dollars. The gross national product, in

bookkeeping or nominal dollars, increased by 281 per cent from 1939 to 1952. Expressed in comparable dollars, the increase was about 88 per cent—a very substantial improvement in national well-being, but not nearly as great an increase as would appear from the illusion-ridden comparison of nominal dollars.

THE original cost method of rate regulation discriminates against owners of utility properties, by treating them as though they are creditors instead of owners. Clearly, the owners of utility properties are given no status of "special privilege" when they are treated in a manner consistent with the status of other property owners.

There is no moral justification for expropriation of the values of utility property, by giving something to consumers at the expense of the owner-investors, even though it is done indirectly as the result of inflation. Underpricing of commodities or services by governmental fiat does not add to the general public welfare, but does provide a subsidy for one segment of society at the expense of another social segment.

Justification cannot rest upon the possibility that the process will be reversed at some future date, so that investors may then gain at the expense of consumers. The long-term trend is toward inflation. For the shorter term, the built-in high wage costs, governmental monetary policy, and the political necessity of governmental action to prevent business recession and unemployment are forces so strong that there is hardly even a possibility of a substantial decline in the general price level. The prospect of that kind of *quid pro quo* for investors is too remote

PUBLIC UTILITIES FORTNIGHTLY

in time to have any value to them, if indeed it exists at all.⁴

IF a serious business depression were to be experienced, it undoubtedly would be demanded that the public utilities "share in the depression." Actually, the owners of utility property would not then be entitled to an excess of returns over and above the economic cost of capital, except as a matter of consistent and fair treatment. In any case, practical considerations would preclude regulatory approval of utility rates seriously out of step with the rest of the economy.

The consequences of the original cost rate base formula thus are that, in a period of inflation, consumers receive the benefit of use of utility property without adequate compensation to the owners. In a period of depression, when price levels fall and the value of money rises, there will be no opportunity to redress the injury to owners. The formula thus becomes a "one-way street."

The inconsistency is one thing and the unfair treatment of past investments in public utilities is another. But from the standpoint of the general public welfare, the long-term adverse economic consequences are probably even more important

⁴ See "The Present Price Level Is Here to Stay," by Paul W. McCracken, *PUBLIC UTILITIES FORTNIGHTLY*, January 21, 1954, p. 81.

than either the inconsistency or the unfairness.

It needs to be re-emphasized that the function of prices in our competitive economy is like that of a policeman. They direct the traffic; that is, the supply of and demand for goods and services. When prices vary from the competitive cost level, the traffic gets out of balance.

THE original cost rate base is inflexible; that is, not adjusted to the changing facts of economic life. In most instances, such a rate base is readily available from the books of account, but the accounting process should not be depended upon to provide results which it was never designed to provide. The result is rigid rates, and rigid utility rates play the same rôle as any other inflexible prices.

If the original cost formula were to be applied consistently in a period of serious depression and reduced incomes, utility rates would remain pegged at too high a level. The utility service would be *overpriced*. The effect of depression and of reduced incomes on individuals and businesses is magnified by artificially fixed prices for some goods and services. The consumption of other goods and services is curtailed in greater proportion than the reduction of total spendable income, because of the necessity of paying the inflexible rigid prices. Because the value of



Q "THE competitive cost standard is obviously equitable. Fairness in earnings regulation concerns particularly the 'sunk' investment that is dependent upon the fairness of the regulatory policy and practice. There is no unfairness if regulation brings rates to the level of economic cost and provides for the past investment an opportunity to earn a return equal to, but no more than, that being earned on other investments of similar risk."

CAPITAL COST AND FAIR RETURN

the consumers' dollar is higher at such times, the original cost formula would make the real cost of utility services to consumers higher than before the depression. The demands for the utility services are reduced where they are not necessities. The result may be unutilized capacity, higher average unit costs of supplying service, and reduced utility earnings.

Rigid utility rates are a menace to smooth and effective operation of the economic system. The prices of other goods and services are forced lower by lack of demand, but inflexible utility rates tend to retard recovery from depressed business conditions. The price system thus tends to be thrown out of gear. These economic attributes of rigid utility rates were spelled out at great length in evidence given by nationally known economists before the Wisconsin commission in the Wisconsin Telephone Company Case.⁵

Now, what is the effect in a period of price inflation? If utility rates understate the economic cost of supplying utility service, the service is *underpriced*. Again, the rigid prices, or "rates" in utility parlance, fail to control the economic traffic. The "demands" for the underpriced service, stimulated by its relative cheapness, are sometimes greatly in excess of the demands that would exist if the full economic cost were reflected in the price of the service. Consequences of the underpricing, experienced in one form or another by many public utilities during recent years, are:

(1) Inability to supply the service

⁵ Re Wisconsin Teleph. Co. PUR1932D 173, 250-266, 271-278.

that is requested at the established rates and held orders or some form of rationing, or

(2) Overloading of available facilities and an unavoidable decline in the quality of the service supplied, or

(3) An uneconomic expansion of the rate of investment in the business.

However, an eventual readjustment of prices to the economic cost of the service cannot be avoided. Let us assume that (1) the general price level becomes stabilized or declines somewhat, and (2) the original cost formula is consistently applied in the future. The existing plant will sooner or later be retired and replaced.

Under the formula, the replacement plant will be reflected in the rate base at its full economic cost (to the extent that the price level is stable), or at more than its economic cost (to the extent of any rise in the value of money after the plant is installed).

FURTHER, additional amounts of capital will have to be obtained from investors to substitute in part for the existing capital, since the accounting amortization of original cost over the estimated useful life of the plant does not provide for maintenance of an equivalent service-giving capacity. Therefore, higher charges to consumers will be necessary to reflect the additional costs of the capital required in substitution for what is now being dissipated, including both return on capital and additional depreciation charges.

What will be the effect of demands for service when consumers must again pay the full economic cost of the service, plus

PUBLIC UTILITIES FORTNIGHTLY

the costs that are being shifted forward to future generations of consumers by the failure to now provide in full for maintenance of the integrity of the capital employed? Will not the consumers then feel

badly treated? They will have made their purchases of utilization appliances without knowing that the day of reckoning is coming. What of the effect on investment risk?

PART III of this article will appear in the next issue of the FORTNIGHTLY.

We Build Better Than We Know

"THIS applies to all of us and not just to some of us. Our entire business . . . exists so that we may render service.

"Many of us spend a lot of time in ways that seem to be quite far removed from the actual job of handling telephone calls. We make out bills. We repair office furniture. We write letters and prepare reports. We study economic and financial conditions. We do research, wash trucks, and buy mechanical pencils. We do a million other things. But we do every one of them in order that all of us together will be able to meet the public's needs for telephone service as well as we know how.

"I repeat, 'As well as we know how.' What we do is so important that we know only one way to do it. That is—to the full extent of our ability.

"I am not sure when it was that the idea of providing the BEST POSSIBLE telephone service first became rooted in this business—in the minds of telephone people. I do know it was flourishing forty years ago, when I started, and I imagine it goes back quite a while before that. . . . It is the foundation of all our efforts.

"Now there are no two ways about it: Doing our best is demanding. It simply will not come easily. But it pays its own dividends. For it sharpens our competence. As we make a habit of doing our best, we acquire talents that we would not want to be without. And besides gaining in skill, I am sure we also gain in character—in our stature as human beings.

"Another value in the job is well brought out in a comment made not long ago by one of the night chief operators. In talking about her work she said something like this:

"In this job things often happen very fast. And when they do, you know perfectly well that what happens next is squarely up to you. You're on your own. But at the same time, you also know that the whole company and telephone people everywhere are ready and eager to help in every way."

"That sums up one of the most important characteristics of our work. Giving telephone service calls for a combination of individual resourcefulness, plus teamwork, which if it isn't unique is certainly unusual. . . ."

—CLEO F. CRAIG,
President, American Telephone and Telegraph
Company.



The Need for Recognizing Fair Value

There are a number of arguments in favor of a return to a fair value basis for rate making, but this author takes the position that the main reason is the unfairness and inadequacy of original cost under economic conditions now prevailing and likely to prevail for the indefinite future of managed currency.

By PAUL GRADY*

THE U. S. Supreme Court, in an opinion written by Justice Douglas in the Hope Natural Gas Case (1944, 51 PUR NS 193), has said that the fixing of just and reasonable rates involves a balancing of the investor and the consumer interests. It seems a fair question, however, to ask whether this is too narrow a viewpoint of the real public interest to be served by regulation. Certainly the customers should be protected from unreasonable charges and the investing public should be fairly compensated but, overriding these considerations, regulation should assure that the

utility as a public servant shall be at all times able to meet its responsibility of rendering adequate service to the public.

President Eisenhower said in a recent speech, "We—this American society—are not some perilously balanced equation of political convenience in which labor plus farm plus capital plus management equals America." His statement was not directed to public utility regulation, but the general principle that the public welfare transcends any one or the sum of all special interests is entitled to great weight by regulatory bodies and by the courts.

The specific authority and duties of the various public utility commissions are set forth in the respective laws of the states

*Partner, Price Waterhouse & Co. For additional personal note, see "Pages with the Editors."

PUBLIC UTILITIES FORTNIGHTLY

and of the United States. Most of the laws provide that rates shall be just and reasonable and many specifically state that the rate base shall be the present fair value of property devoted to utility service. In addition to the statutory provisions, the courts have held that the Constitution prohibits the confiscation of property either by fixing of too low a rate base, too little depreciation, or less than a reasonable rate of return. From a layman's viewpoint it should seem logical that any test of confiscation of property would have to be judged in relation to the present fair value of the property. For many years the courts held to this conclusion.

Regardless of the extensive background of legal precedent and statutory prescription of fair value, as the basis for rate making, the federal regulatory commissions, under the previous administrations, have carried out a steady march toward original cost less depreciation, as a fixed formula for the rate base, in combination with current market rates for funded debt and equity capital as the allowable rate of return.

MANY readers will doubtless recall the establishment of original cost as a mere accounting subdivision of the utilities' plant investment. This was intended, according to the affidavits of staff members of the commissions, to provide information of great usefulness in a consideration of evidences of value and did not in any way emasculate cost to the utilities. After the uniform systems had been upheld in the courts, the commissions went further in restricting the corporate cost of plant investment by requiring property acquisition adjustment accounts, regardless

of what they represented, to be written off to surplus or to other income deductions. The federal commissions also shifted rapidly from the objective of use of accounting for the purpose of supplying information useful in regulation, to the use of original cost accounting as the main instrument of rate regulation.¹

During this switch to strict adherence to cost in utility regulation, over-all financial policies were contributing to inflation. The supply of money and its equivalent in the form of bank credit was greatly increased through deficit financing and devaluation and was widely distributed via government spending. The inflationary forces were well under way even before our engagement in World War II. The tremendous cost of the war was met largely by deficit financing; in other words, by the creation of money. During the war the extent of this inflation was hidden somewhat by price controls but became fully evident in the postwar period when the reservoir of purchasing power and the pent-up demand came into full competition for available supplies of consumer and capital goods.

The greatest need in utility regulation in recent years has been the re-establishment of the required degree of independence and of a judicial attitude. The Eisenhower administration has used every op-

¹ In the Hope Natural Gas Company Case (1942, 44 PUR NS 1), it will be recalled the Federal Power Commission found that the rate base was the actual legitimate cost less existing depreciation plus estimated working capital. In the determination of actual cost, \$17,000,000 of drilling costs applicable to presently producing wells was excluded because the company had charged these costs to expenses in the period prior to regulation and the commission gave no weight to evidence of reproduction cost. Subsequently, in the Pennsylvania Water & Power Company Case (1949, 82 PUR NS 193), the commission held that the rate base was original cost less straight-line depreciation plus working capital.

THE NEED FOR RECOGNIZING FAIR VALUE

portunity to demonstrate a fundamental respect for the co-ordinate status of the legislative and judicial branches as well as a belief in states' rights.

IN a more tangible fashion there have been several indications that state regulatory commissions and courts have seen the fallacy and unfairness of the original cost formula as applied in present circumstances where the current dollar cost of utility plant is substantially greater than the original cost.³

Percentage allowances for rate of return do not mean a great deal unless they can be related to the rate base allowance and to the treatment of various expense items in the test period. Following the reversal of its decision as to return in the Northern Natural Gas Company Case, 95 PUR NS 289—allowing a 5½ per cent return—the FPC allowed 6½ per cent return to the United Fuel Gas Company. (This allowance was more liberally confirmed in

a settlement, accepted by United Fuel Gas, following a rehearing in which the company complained of inadequate provisions for expenses during the test period.) Several state commissions, including Florida, Missouri, Alabama, New Mexico, and Maine, have allowed rates of return around 6½ per cent.

While the trends thus indicated are encouraging, a great deal remains to be done in obtaining a full understanding of the permanent impact on utility costs of the monetary inflation which has occurred in the past twenty years. All of the major factors in rate making—namely, the rate base, the allowance for property exhaustion, and the rate of return—are substantially affected. Substantial progress could be made if we can bring about an understanding that the primary issue is not so much fair value *versus* a prudent investment or cost concept, but rather that original cost is simply not a valid method of determining real economic costs, following a substantial and permanent decrease in the purchasing power of the monetary unit.

THE CRUX of the problem stems from the unsuitability of a managed monetary unit of changing purchasing power to serve as a medium of expressing the aggregate wealth invested in fixed assets and the portion thereof chargeable to the operating costs for the purpose of determining income available for return. Sup-

³ In addition to recent (1953) state court decisions requiring commissions to recognize reproduction cost elements of fair value in Illinois and Maine, and a 1950 adoption of a fair value base by the Michigan commission, fair value, as the established basis for rate making, now prevails in Maryland, North Carolina, Ohio, Pennsylvania, Indiana, Delaware, Arizona, and New Mexico. In two states, Florida and North Dakota, original cost is prescribed as the basis for regulation in the public utility statutes. In the other states the public utility acts generally set forth that rates shall be just and reasonable or contain valuation provisions which to a layman indicate that fair value was intended. The meaning of some of these statutory provisions has not been tested or clearly interpreted in the courts since the Hope decision.



Q "THE greatest need in utility regulation in recent years has been the re-establishment of the required degree of independence and of a judicial attitude. The Eisenhower administration has used every opportunity to demonstrate a fundamental respect for the co-ordinate status of the legislative and judicial branches as well as a belief in states' rights."

PUBLIC UTILITIES FORTNIGHTLY

pose our political leaders had shown the courage and desire to accomplish a 50 per cent cut in the purchasing power of the dollar overnight by doubling all wage rates and doubling the supply of money and its equivalent and had shown the forthrightness to change the name of the dollar to that of "roller."

IN these circumstances, would anyone say that the "integrity of the investment is maintained" by (1) adding the previous dollars invested in utility plant to the subsequent "rollers" invested, to determine an investment rate base, (2) allowing depreciation in "rollers" on the combined dollar and "roller" service value over the estimated life of the properties, and (3) allowing a return in "rollers" on the combined dollar and "roller" rate base? In essence this is exactly what has happened in approximately one decade, except that the name of the dollar was not changed. And the original cost advocates still claim that no consideration should be given to the decrease in the purchasing power of money in determining the rate base, annual property exhaustion costs, and the allowable return.

The accountants, engineers, and managements of the utility companies must have learned how to deal with fractions well enough to demonstrate to the regulatory commissions and the courts the fallacy of applying an original cost formula after a long period of substantial monetary inflation. The dollars invested in utility plant in any year are merely the numerator and the purchasing power for that year is the denominator. The purchasing power or denominator is different for practically every year and it is obvious that these fractions must be stated on a

common denominator basis before the revised comparable numerators may be added to obtain a meaningful aggregate current dollar investment in utility plant.

THIS point was illustrated in his usual vivid style by Professor William A. Paton in recent testimony before the Michigan commission. He uses diagrams of a two-story building, of which the first story was built in 1940 and the second in 1953. He assumed that between 1940 and 1953 the foot had been changed to six inches but was still called a foot and that the purchasing power of the dollar had also been cut in half but was still called a dollar. The first floor was 10 feet high and cost \$100,000, both expressed in 1940 measuring units; the second floor was 20 feet high and cost \$200,000 in the 1953 measuring units. It is obvious that it is just as wrong to say the building cost \$300,000 as it is to say that it is 30 feet high. Any significant expression of the height or the cost must convert the earlier units into terms of the current units. If this conversion is made it is clear that we obtain a harmonious and sensible answer that the building is 40 feet high and that it cost \$400,000, stated, respectively, in terms of the assumed new linear measuring unit and of the 1953 dollar.

Let us extend this simple illustration into rate regulation—first under an original cost concept and then under a current cost concept—which gives proper recognition to the effects of monetary inflation. Under an original cost concept the rate base would be \$300,000 less \$25,000 accumulated depreciation on the first story of the building, assuming a 50-year estimated life, or a net amount of \$275,000. The annual depreciation allowance on a

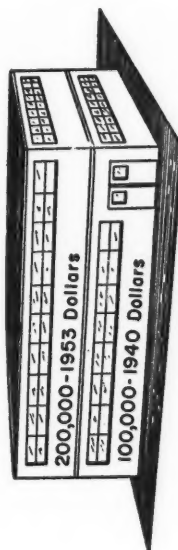
THE NEED FOR RECOGNIZING FAIR VALUE

TOTAL COST OF 2-STORY BUILDING

If 1st Story Cost \$100,000 in 1940 Dollars

And 2nd Story Cost \$200,000 in 1953 Dollars

(assuming one 1940 Dollar equals two 1953 Dollars)



Relative Value of Dollar (1953 Dollars=1.00)	ORIGINAL COST IN MIXED DOLLARS (Unadjusted)	Cost As Converted To 1953 Dollars
--	---	---

ORIGINAL STORY (1940) 2.00 X \$100,000 = \$200,000

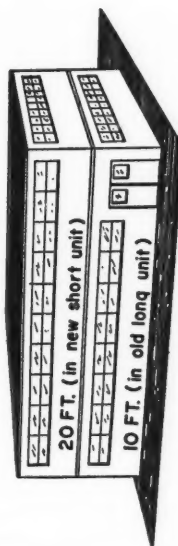
ADDED STORY (1953) 1.00 X \$200,000 = \$200,000

TOTAL COST ~~\$300,000~~ \$400,000

TOTAL HEIGHT OF 2-STORY BUILDING

If 1st Story is 10 Long Feet High

And 2nd Story is 20 Short Feet High



Relative Length of Foot (New Foot = 1.00)	HEIGHT IN FEET MIXED (Unadjusted)	HEIGHT IN FEET Converted To New Foot
---	---	--

ORIGINAL STORY 2 X 10 = 20

ADDED STORY 1 X 20 = 20

TOTAL HEIGHT ~~30~~ 40

PUBLIC UTILITIES FORTNIGHTLY

straight-line basis would be \$2,000 on the first floor and \$5,333 on the second floor (based on remaining estimated life), or a total of \$7,333. Assuming a 6 per cent return on the rate base, the utility would be allowed to earn \$16,500 over and above operating expenses and taxes.

UNDER original cost regulation the utility would receive \$7,333 as compensation for exhaustion of capital and \$16,500 as compensation for return on capital invested or an aggregate for both phases of capital costs of \$23,833. Under a current cost concept, which properly translates the past investment into current dollars, the rate base would be \$400,000 less \$50,000 depreciation, or a net amount of \$350,000. The annual depreciation allowance in terms of present dollars would be \$4,000 on the first floor and \$5,333 on the second floor, or a total of \$9,333. The 6 per cent rate of return on the rate base would produce net earnings of \$21,000. Thus, when property exhaustion costs and the wages of capital are properly stated in current dollars, the sum of the two becomes \$30,333, which is \$7,500 or 31 per cent more than on the original cost result. Another way to look at the real meaning of the original cost result is that after allowing for the economic or current dollar cost of property exhaustion there is \$14,500 left for return, which represents only slightly more than a 4 per cent return on the present dollar cost of the property less depreciation.

How can there be a clearer example of confiscation than failure to allow for property exhaustion in current dollars on the first floor of the building compounded by the limitations of a return only on the original cost, less depreciation? Under

these conditions, the market value of capital stock would undoubtedly be limited to approximately the nominal book value and the investors who furnish capital for the second story would receive twice the number of shares as the investors who built the first story. Thus the old investors who contributed one-half of the productive capacity are reduced to a one-third equity in earnings and the new investors would receive a two-thirds equity in earnings for the one-half of productive capacity contributed by them.

This example is fairly typical of what has actually happened generally to a greater or less degree in the utility industries during the postwar period. It is difficult to understand how anyone can believe that the integrity of the investment has been maintained under these conditions or that the utility industries can long remain in sound financial health under an original cost formula of regulation.

ONLY one case has come to my attention in which an allowance was made for something more than original cost depreciation. In *The Peoples Gas Light and Coke Company* decision the Illinois Commerce Commission allowed original cost depreciation plus approximately \$550,000 additional for anticipated obsolescence; the nature of the latter allowance was not specifically described.³

The construction of state laws, of course, is a matter for the commissions and the courts to pass upon. However, if

³ (1953) 99 PUR NS 361. In an appeal of the *Southern Bell Teleph. & Teleg. Co. v. North Carolina Utilities Commission*, the superior court in reversing the commission held that the company was entitled to compensation for property exhaustion in terms of current dollars. But this was reversed on further appeal by the North Carolina Supreme Court, which reinstated original cost depreciation.

THE NEED FOR RECOGNIZING FAIR VALUE

property replacements and substitutions have their customary accounting and business meaning, it seems clear that utilities are placed in the serious predicament of being limited by the classification of accounts to recovery of original cost and at the same time are prohibited from issuing new securities for the excess of current costs of new properties over the original cost of properties retired. The only remaining source of funds to cover property replacements and substitutions would be retained earnings and for many years the utilities have found it necessary to pay out in dividends a very high percentage of the earnings applicable to capital stocks.

THE allowance of compensation for property exhaustion in current dollars for rate purposes is made more difficult of accomplishment by the fact that the excess of the current dollar costs over the historical dollar cost to the utilities is not allowable for federal income tax purposes. This means that the utility, under present tax rates, in order to provide for the maintenance of established capacity, must col-

lect \$2.08 in revenues for each dollar of property exhaustion allowed over and above the amount of depreciation allowed for tax purposes. At recent hearings of the House of Representatives Ways and Means Committee, several witnesses for the utility industry requested that the Internal Revenue Code be revised to allow adjustment of depreciation charges to give effect to changes in price level. This is a good start, but there can be little hope for remedial action by Congress without a concerted effort which has the full backing of all utility industry, as well as strong recommendations by the regulatory commissions. The Congress and the public must be made to see the danger to our general welfare inherent in this disguised capital levy on the public utility industries, which are the foundation of our productive enterprise system.

THE principal argument advanced by the original cost advocates against translating the historical investment into current dollars is that obsolescence and inefficiencies present in the existing utility



TREATMENT OF HYPOTHETICAL BUILDING IN RATE REGULATION

	<i>Original Cost In Mixed Dollars</i>	<i>Cost in Current Dollars</i>
<i>Rate Base</i>		
First story (1940)	\$100,000	\$200,000
Second story (1953)	200,000	200,000
Total cost	\$300,000	\$400,000
Less—Reserve for depreciation on 1st story (50-year life)	25,000	50,000
Rate base	\$275,000	\$350,000
<i>Annual Return</i>		
Earnings at 6%	\$ 16,500	\$ 21,000
<i>Annual Property Exhaustion</i>		
First story at 2% per annum	\$ 2,000	\$ 4,000
Second story on basis of 37½-year remaining life	5,333	5,333
Total	\$ 7,333	\$ 9,333
<i>Annual Return Plus Property Exhaustion</i>	\$ 23,833	\$ 30,333

PUBLIC UTILITIES FORTNIGHTLY

plant would effectively offset the inflation. If this argument were sound it would demonstrate that something is seriously wrong in the rates of depreciation being used because depreciation is designed to cover all phases of property exhaustion, the principal one being obsolescence. Under a stable price level the original cost adherents presumably would agree that the cost of the property less depreciation is a suitable measure of an investment rate base and they would raise no question as to unrecognized obsolescence and inefficiencies. Now, if instead of a stable condition we have inflation to the extent of reducing the dollar to one-half of its previous purchasing power, how can the adjustment of historical dollar investment and the concurrent adjustment of the accumulated reserve for depreciation to current dollars introduce any question of physical obsolescence?⁴

Another objection encountered to stating the cost of utility properties in current dollars both for the rate base and for measuring property exhaustion costs is that such action would be tantamount to giving investors in utility common stocks special relief from the effects of inflation. This ignores the fact that price fixing under regulation is a substitute for the usual market forces of supply and demand in

competitive enterprises. It can readily be demonstrated that manufacturing industries have priced their products at a level which has covered cost of property exhaustion in current dollars and has left a remainder of net income which has averaged approximately 8 per cent on invested capital stock and surplus stated in current dollars during the entire postwar period.

Whatever merit there is to pricing property exhaustion costs in current dollars, it manifestly applies to all of the property or to none of it. The full economic cost in current dollars of property exhaustion must be met regardless of where it is charged. If it is unsound, as I believe, to issue new securities for property replacements and substitutions, this applies just as much to new debt securities as it does to new common stock. Furthermore, if a utility for competitive or other reasons is willing to accept less than full compensation, then in the interests of clarity to all parties to the rate-making proceeding it should be recognized that the earnings available for return have been reduced.

SOME objections to adjusting for price level changes have been directed to the limitations and alleged unsuitability of available price index series. It is difficult to see why the indexes should be unsuitable for this purpose when they are already in wide use in wage agreements, long-term purchase and sales arrangements, statutory social security benefits, farm commodity price supports, and local taxes. It is my opinion that the price indices available have a far greater accuracy in measuring the changes in price levels in the areas with which they deal than can be said to exist in the estimates of the lives of various types of physical properties

⁴In this connection, it should be pointed out that translation of the depreciation reserve into current dollars is not accomplished by merely using the over-all percentage relation of the book reserve to the original cost of plant but instead gives appropriate weight to the aging of the reserve accumulations. In the example of the building it will be noted that on an original cost basis the reserve was approximately 8 per cent of plant whereas after conversion to current dollars the reserve was over 12 per cent of plant. If the 8 per cent reserve was a reasonable measurement of depreciation and obsolescence on the original cost basis then the 12 per cent is an equally correct measurement in relation to the cost in current dollars.

THE NEED FOR RECOGNIZING FAIR VALUE

which are the basis for depreciation rates.

The Index of Price Deflators, compiled and published by the Department of Commerce, covering construction costs and producers' durable equipment costs; Handy's Public Utility Index, covering buildings, gas plants, and electric plants; and many indexes prepared by the engineering staffs of state commissions are entirely suitable for the purpose of translating utility plant investment and property exhaustion costs into current dollars. For that matter the Consumers' Price Index, compiled by the Bureau of Labor Statistics, would also reasonably accomplish the translation of past dollar costs.

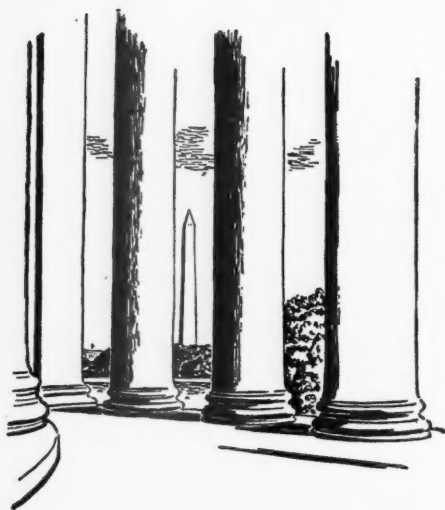
The 1953 report of the NARUC Valuation Committee is an excellent summarization of the major issues involved in current rate proceedings. The following conclusion in itself may be of considerable significance as an indication of a more reasonable and constructive trend of thought:

As a result of recent court decisions, an increasing number of state commissions are now required to adhere more closely to statutes and base their findings on a fair value rate base and most of these are specifically barred from considering original cost as the sole criterion of value. These issues will undoubtedly be the subject of review in other courts because they have been presented in proceedings before commissions in most other states.

This committee takes no position for the purposes of this report as to the appropriate treatment of any of these issues in fixing rates. It feels strongly, however, that in the absence of statu-

tory requirements or established procedure in individual states there should be no revival on a broad scale of the complex and vexing methods of finding reproduction cost less depreciation which the use of a present value base formerly entailed. In these days of rapid change, prompt and effective rate treatment should not be hamstrung by the necessity of making expensive, detailed, and time-consuming property valuations, if some other more expeditious procedure can be found and employed which would provide equitable results. One such alternative procedure might be in the use of trended original cost depreciated, which recognizes the change in the value of the dollar without the time-consuming and costly task attendant upon reproduction cost estimates.

WHILE the foregoing is not an endorsement of the necessity of making price level adjustments to obtain realistic plant investment and property exhaustion costs, neither is it antagonistic to the principle. Possibly the conclusion of the committee offers a foundation for building a more practical structure of regulation in which the staffs of the commissions would recognize the original dollar costs must be translated into current dollars by use of suitable price indexes and the utilities would forego the extremes of reproduction cost new appraisals. There can be no question that under such a method of regulation reasonable results can be obtained which will fairly deal with consumers' and investors' interests and above all will serve the public interest by maintaining a vigorous utility industry.



Washington and the Utilities

Consolidation of SWPA

SENATOR KERR (Democrat, Oklahoma) has pledged a last-ditch fight "to do everything we can to prevent, hinder, and delay" a personnel cut in the Southwestern Power Administration. He also stated that "the REA people, the municipal leaders, and everyone else interested, know that the Southwestern Power Administration cannot function on that kind of crippled basis."

What the Oklahoma Democrat was talking about was Interior Secretary McKay's recent order of a 20 per cent manpower reduction in SWPA immediately, with a further reduction to the extent of 33 per cent by May 1st. McKay's action was based on a survey team recommendation which has been analyzing the operations of Interior's public power agency, serving Arkansas, Louisiana, and parts of Kansas, Missouri, Texas, and Oklahoma. McKay announced that his first reduction in force would drop SWPA's staff (now numbering between 210 and 224, as compared with an authorized 256) to 180 by May 1st. After that a schedule is to be submitted in sixty days for bringing the total down to 86.

The agency's own separate Washington office will be abolished. The survey report suggested that future responsibilities of SWPA will "be principally system operations and marketing power to a small number of wholesale customers, thus eliminating many of the extraneous activities." A large force of field representatives "is no longer required," the report stated, and former requirements for skilled people in public relations, sales, contract negotiations, professional engineering, accounting and control supervision "are no longer necessary."

The order is being carried out by Fred G. Aandahl, who said that reductions of the agency's personnel are being made "in an orderly manner."

McKAY said he had approved putting into effect some of the recommendations of a survey team which studied the power-marketing agency as part of his program to examine operations of all department units.

"The cost of administration of SWPA is an item that is included in the rate for power charged the customer," the announcement said. "The proposed econo-

WASHINGTON AND THE UTILITIES

mies in administration will be to the customers' benefit."

SWPA may eventually be deprived of its semi-independent status if the survey team recommendations on this point are approved by Interior. The survey recommended that the agency be converted into a division of power marketing. This, with others, would be placed under a proposed new super official within the Office of the Secretary of Interior to perform the duties of an over-all power administrator. He would have charge of direction and policy interpretation of all government power-marketing agencies.

"It is felt that substantial economies can be effected through uniform interpretation and application of government policies with respect to the marketing of federal power, by appointment of one administrator located in close proximity to the Secretary of Interior and the Congress," the survey stated. This is known to be in line with departmental thinking and may go into effect at a later date. Interior seems content for the present to act only on those recommendations affecting reduction in personnel. The report also stated:

The division should be headed by a power manager located with headquarters in Tulsa, Oklahoma.

This recommendation is contingent upon the establishment in the Office of the Secretary of Interior of a power administrator responsible for the direction and policy interpretation of Southwestern, as well as other government power-marketing agencies.

The administration now maintains local offices at Springfield, Missouri; Little Rock, Arkansas; Muskogee, Oklahoma; and Ada, Oklahoma. An official said one or more of the offices may be closed. There are also SWPA water houses and garage depots at Doniphan, Missouri, Springfield, Muskogee, Tulsa, and Ada.

Clark Hill Plan Unveiled

THE Interior Department probably stands a better chance of getting cooperative reaction from REA co-ops, in the Georgia area at least (than on its above plan to de-emphasize SWPA), with its new proposed contract for the sale of power from Clark Hill dam. The Georgia co-op officials were called in to Assistant Secretary Aandahl's office on February 17th to look over the latest version of the long-pending power sales program.

The reaction was not entirely favorable. Former Georgia Governor Ellis Arnall, now counsel for the Georgia Electric Membership Corporation, called it "unacceptable now" and hinted at court action to prevent the Georgia Power Company from receiving a permanent contract to distribute electric power generated by the government-owned Clark Hill project.

However, there seemed to be some difference of opinion between the top level and the operating level within the Georgia co-ops. Some of the operating management, noting the assurances of low rates and ample future supply contained in the contracts, wanted a chance to think it over. And that is what Assistant Secretary Aandahl gave them. He asked all parties to consider the terms and submit suggestions within thirty days.

Major provisions of the triple-contract proposals were as follows: (1) "Preference customers" would be assured of their full share of power at \$9 per kilowatt capacity and 4 mills for energy via transmission systems. (2) All such customers in a position to use power could get government contracts. (3) They would get about one-half of Clark Hill production less land-line losses. (4) Clark Hill would take care of about one-third of their total needs; Georgia Power could serve the rest as requested. (5) Despite two sources of power, there would be only one system for

transmission, billing, etc. (6) Efficient and administrative economy would result. (7) Contracts could be canceled on three years' notice or annual withdrawal of 10,000 kilowatts on six months' notice.

Following the meeting, Interior Department officials announced they are prepared to execute such a contract with the utility companies. Aandahl insists that the proposal "is the best arrangement we have been able to work out," and that the contract would make Clark Hill power available to Georgia preference customers at less cost than under a wheeling arrangement.

Reconversion of Inch Lines?

THE possibility that the government-built Little Big Inch pipeline might again be converted from natural gas transmission to its original purpose—transmission of petroleum and petroleum products—was raised by a recent announcement of Texas Eastern Transmission Corporation. If the directors of the company approve the conversion, it would be the first time a gas pipeline company has undertaken the transportation of petroleum products on a large scale.

To replace the Little Big Inch in moving natural gas, Texas Eastern may construct a new gas line between Castor, Louisiana, and Kosciusko, Mississippi, which would connect with a present company line from Kosciusko to Connellsville, Pennsylvania.

A company spokesman said this line could probably handle the present capacity of the Little Big Inch (200,000,000 cubic feet daily) "and considerably more." Conditions, under which Little Big Inch was sold by the federal government in 1947, provide for requisition (with compensation) and reconversion by the government if necessary in a national emergency.

Two Gas Bills in the Senate

SENATOR Humphrey (Democrat, Minnesota) has introduced a new bill to slow up natural gas rate increases and prevent what he calls "pyramiding" rates. It is not regarded as likely to move out of the subcommittee of the Senate Interstate Commerce Committee, to which it has been referred. As a matter of fact, it is believed in some quarters that Humphrey introduced the bill for bargaining or propaganda purposes in his effort to block other pending gas legislation.

Humphrey's bill (S 2971) would defer for fifteen months, instead of five, the time period before proposed natural gas rates go into effect. He claims there have been periods of time in which consumers of natural gas have been paying successive increases later found by FPC and the courts, in some of their decisions, to be higher than they should be. Besides deferring for fifteen months the time period before new rates may go into effect, Humphrey's bill would also give the commission authority at any time within thirty days after the filing of a new rate schedule to order an interim rate, charge, classification, or service to become effective for the 15-month period.

Senate action on the Hinshaw Bill (HR 5976) was still awaiting disposal of other more controversial matters before the Senate. The House-approved bill to exempt intrastate distributors of natural gas from FPC control was believed to be facing a vigorous debate from so-called "consumer state" Senators, who claim that higher rates for customers will result from its passage. On the final floor vote, however, there was thought to be ample support to pass the measure.

The bill has already been approved by the Senate committee and has been marking time on the Senate calendar, while the solons debated the Bricker amendment.

Wire and Wireless Communication



Bell System Reports Record Year in 1953

"Americans in 1953 found their telephone service fast, convenient, economical, and progressively improving. They used more of it than in any year since telephoning first began," Cleo F. Craig, American Telephone and Telegraph Company president, said in the company's annual report released last month. Earnings on Bell system capital were at the rate of 6.1 per cent compared with 5.9 per cent in the preceding year. Net income of the system in 1953 equaled \$11.71 per share of AT&T stock, compared with \$11.45 in 1952.

The report points out that 1953 earnings, while better than the year before, are still low compared with earnings during the previous twenty-five years, which included years of depression as well as of high business activity. Costs of providing telephone service have greatly increased and are still rising, Craig said. The companies are, therefore, keeping right on with the necessary work of pressing their needs for increases in rates before the regulatory authorities.

Including excise taxes of \$670,000,000, direct taxes on Bell system service in 1953 totaled \$1,469,000,000. This was an average of more than \$3 per telephone per

month. Craig pointed out that this heavy burden discriminates against telephone users and added that they are paying higher than "luxury" excise taxes on a service that is not at all a luxury.

The gain in telephones during the year totaled 1,900,000, about 275,000 of which were in rural areas. Telephones served by the Bell system reached 41,350,000, and during the year the total number of telephones in the United States passed the 50,000,000 mark. To enlarge and improve telephone facilities, the system spent at a rate of more than \$25,000,000 a week, or about \$1.4 billion for the year.

New demand receded somewhat in the later months and the volume of long-distance calling did not show its usual rate of increase. However, the flow of new orders is still large and 1954 will be another year of heavy construction, which should go far toward meeting all the needs of telephone users, Craig stated.

ALARGE amount of new capital was required during 1953 to meet the continuing need for new construction. An issue of \$602,543,700 12-year 3½ per cent convertible debentures was 99 per cent subscribed through the exercise of rights. The total number of share owners at the end of the year was 1,265,000, about 45,000 more than a year ago.

PUBLIC UTILITIES FORTNIGHTLY

"Bell system progress took many forms in 1953. Outstanding was steady improvement in service quality," said Craig. "Operators handled calls on the average with greater speed. Maintenance men kept the service even more dependable, more free from mechanical failure than at any time in the past. Installers and construction crews put in more and more telephones and lines and switching equipment of new design and greater capabilities."

New equipment developed by the Bell Telephone Laboratories and made by Western Electric Company, the system's manufacturing and supply branch, continues to make contributions of fundamental importance to telephone progress. "One example is the apparatus which automatically records information for billing customer-dialed calls. Another is a new type of switching system which went into service last year in four cities. This uses transistors, the new electronic devices invented at the Laboratories, in equipment which routes long-distance calls automatically." The report adds that the transistor is also being used on a trial basis to increase the message-carrying capacity of rural telephone wires.

IN addition to making contributions to telephone progress, Bell Telephone Laboratories and Western Electric Company were called on by the government to devise and produce military electronic systems to an even greater extent than in the last few years. One of these is "Nike," the first anti-aircraft guided missile system. This remarkable weapon is designed to locate and destroy hostile bombers which by height, speed, and evasive tactics might escape conventional weapons.

Another noteworthy defense project was construction for the Air Force of the first experimental units of a "distant early warning line" of radar stations on the

northern shores of Alaska and Canada, only 1,200 miles from the North Pole. This line would give prompt and positive warning of hostile aircraft.

"The people of the Bell system are devoted to their calling and to the needs of the people they serve. Ours is a service of neighbor to neighbor—human, personal, friendly, courteous," Craig concluded. "All the progress is the work of men and women—the people of the telephone companies, of the laboratory, of the manufacturing and supply organization. To say that 1953 was a constructive and successful year, is also to say, 'They made it so.'"

Phone Union to Seek Health Benefits

A COMPANY-PAID health insurance plan is at the top of the CIO telephone union's 9-point bargaining program launched last month. The Communications Workers of America served its first contract termination notice of the year—covering some 2,500 Western Electric Company workers at Lawrence and Haverhill, Massachusetts. Similar 60-day notices have gone to other Bell system units employing almost 85,000 workers represented by the CWA.

The health insurance the union wants would provide hospitalization and surgical benefits for each telephone worker, his or her spouse, and unmarried children under nineteen years old. "This is the most important item on our bargaining agenda," the CWA's executive board decided at its Atlanta meeting held in January.

Other key items on the union's bargaining agenda deal with pensions, wages, wage progressions, area differentials, and hours. The union seeks to establish pension plans where none exist and improvement in existing plans to provide a \$100 monthly minimum.

Florida Court Upsets Commission Order

A FLORIDA state utilities commission order denying a rate increase to the Florida Telephone Corporation as a penalty for inadequate service was upset by the state supreme court in a ruling last month. The court acknowledged that the commission is entitled to penalize utilities for inadequate service but not in rate-making proceedings.

Although the commission found that the company, which serves a central Florida area around Ocala, would be justified in increasing its gross revenue by 18 per cent to bring a fair and reasonable profit, it imposed in the same order a penalty for poor service which offset the increase.

In the unanimous opinion written by Justice Mathews, the court sent the case back to the commission for further action in line with the court decision, stating:

Under our statutes the rate-making power should be exercised in one proceeding and the question of the adequacy or inadequacy of equipment, repairs, improvements, and service should be disposed of in another proceeding.

While the legislature may have the power to change the law and provide for all such matters to be disposed of in one proceeding, it is beyond the power of the commission to change the law. . . .

"The increase in rates affected the entire system" of the company, the court noted, while "the complaint with reference to poor or inadequate service covered only about 15 per cent of the entire system." The court held that the commission "had no authority to deny an increase in rates which it found to be just, by the means of inflicting a penalty because of poor or inadequate service, and exceeded its jurisdiction when it inflicted such penalty in a rate-making proceeding.

"If the service is poor or inadequate, the commission may of its own motion, or upon the complaint of others, take appropriate action as provided by law," the ruling stated.

No More Phone Calls on the Cuff in Japan

JAPAN's public telephones are going off the honor system. Patrons will be required to deposit a coin before they chat. Heretofore they were on their honor to slip a 10-yen coin or bill (about 3 cents) into a box beside public telephones after the call.

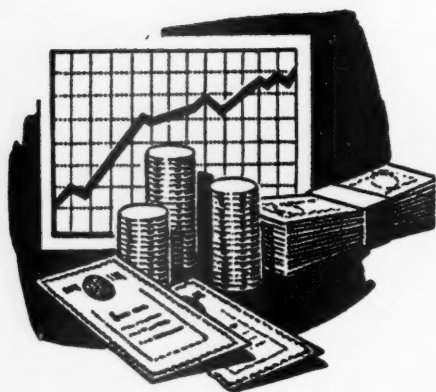
That system did not work. But, complained the customers, neither did the telephones—most of the time. The boxes were yielding a rash of nasty notes about the service, an occasional IOU, used facial tissues by the pound, a general assortment of other débris—and very little money.

The telephone company estimated that 85 per cent of the calls were on the cuff. However, it hastened to add, most of the "deadbeat" calls were wrong numbers. The new coin boxes are similar to those in use in the United States—with one interesting variation. This is a bow to those pesky wrong numbers.

To guard against a customer losing a coin every time the company turns up a wrong number, a gadget gives the patron ten seconds to discover if he has the right party.

Here's how it works: The patron slips in a coin and dials his number. If he gets the right number he pushes a button and his coin drops into the box. If he does not push the button, the telephone goes dead after ten seconds and the coin is returned.

The new coin boxes have another advantage. There is no slot for nasty notes or used facial tissue.



Financial News and Comment

By OWEN ELY

Potential Impact of Atomic Energy on Utility Securities

ELDRED H. SCOTT, controller of Detroit Edison Company, recently presented a paper on the above topic in a session on financial problems of insurance companies at the annual meeting of the American Finance Association at Washington. We summarize it as follows, with some editorial comment added:

Thus far estimates of construction costs in the reactor field have been as high as \$850 per kilowatt of capability. Since a conventional plant costs only about \$160 per kilowatt, it is generally assumed that the cost of a nuclear plant must be reduced to around \$300 to make the power competitive with steam or hydro.

All this is based on the further assumption that nuclear power will be used at a central station setup with the conventional steam turbine and generator, so that the only important change would be in the boiler-room and fuel-handling facilities. In the composite 1952 balance sheet of electric utilities, boiler-plant equipment constituted only about 8 per cent of total assets. Moreover, the present boiler-plant investment of \$2.4 billion is covered four and one-half times by the common stock equity of \$11.4 billion. Hence, Mr. Scott concludes that possible scrapping of fur-

naces, etc., would not in any event disturb the position of the bondholder.

PROPERTY losses resulting from superseded or obsolete plant are not new. It has long been a problem of the gas and telephone companies, particularly where the conversion to natural gas has resulted in considerable amounts of abandoned property. The United States Supreme Court itself has held that a gas company should be permitted to retain the unamortized cost of a superseded plant in its rate base (*Pacific Gas & E. Co. v. San Francisco*, 265 US 403, PUR1924D, 817).

In the telephone industry, the substitution of automatic dialing equipment is a like factor. Introduction of nuclear power would be a similar step for the electric

DEPARTMENT INDEX

	<i>Page</i>
Potential Impact of Atomic Energy on Utility Securities	372
Table—February Utility Financing	374
Utility v. Industrial Stocks—Long-term Trends	375
Reducing Statistical Data Required by Federal Agencies	375
Chart—Utility v. Industrial Stock Prices, 1918-54	376
List of Brokers' Utility Analyses	377
Table—Data on Electric Utility Stocks	378, 379, 380

FINANCIAL NEWS AND COMMENT

industry. Regulatory precedent in the gas and telephone fields should thus allay fears as to the ability of most electric utilities to recover from customers any large property write-offs resulting from use of nuclear power.

(We might also point out that many electric utilities went through such an experience during the 1940's when the SEC ordered large write-offs in the plant accounts of numerous holding company subsidiaries, some of which losses were absorbed immediately and others amortized over 15-year periods. Many of the state utility commissions have recognized such amortization accruals as legitimate deductions "above the line"; and some have permitted inclusion of the unamortized amounts (100.5) in the rate base.)

TURNING to the composite income statement of electric utilities, Mr. Scott pointed out that fuel, which now accounts for nearly 14 per cent of the revenue dollar, will drop to a negligible amount if nuclear fuel is substituted. On the other hand, the expense of operating steam plants might move up considerably, due to the difficulties in operating and

maintaining radioactive nuclear equipment. Depreciation and taxes would also be higher due to the larger investment. With larger revenues, however, the amount available for interest and dividends and surplus should increase.

Nuclear power is originally heat energy—possibly in future this heat could be used locally (assuming that uranium 235 could safely be used in small amounts in the home, or that the heat could be piped through the streets), instead of converting it to electricity in a central station. Mr. Scott presents the accompanying table showing the proportion of electricity used in the home for which heat might be substituted.

THUS, if an atomic reactor were placed in the basement of a house it might supply about 40 per cent of the average householder's energy requirements, but he would still need electricity for lighting and various motor appliances (60 per cent). Of course, in the all-electric home the percentage of electricity thus used would be only 18 per cent; but the kilowatt-hour amount would still be nearly twice the average residential use today. Moreover, the



	Annual Residential Use			
	Average Customer KWH	Per Cent	All-Electric Home KWH	Per Cent
<i>Electricity Used As Such</i>				
Lighting	700	30%	800	3%
Motor Appliances				
(Washers, Refrigerators, Freezers, Air Condi- tioners, TV, Radio, etc.)	700	30	3,550	15
Subtotal	1,400	60%	4,350	18%
<i>Electricity Reconverted to Heat</i>				
Space Heating (Panel)			12,000	50%
Water Heating			4,000	17
Electric Range	940	40%	1,290	5
Clothes Dryer			780	3
Incinerator			660	3
Other Appliances			920	4
Subtotal	940	40%	19,650	82%
Total Home Usage	2,340	100%	24,000	100%

PUBLIC UTILITIES FORTNIGHTLY

average domestic customer has well over \$1,000 invested in electrical equipment with fixed charges of about \$100 a year, compared with his electricity bill of only \$60.

Thus, it appears doubtful that he would be prepared to switch quickly to an atomic reactor.

To what extent is electricity used in industry for heating purposes? No up-to-date figures seem available. An FPC compilation in 1946 indicated that electric furnaces use about 14 per cent of the electricity consumed by industry; presumably with the increased production of aluminum the percentage may be larger



FEBRUARY FINANCING

PRINCIPAL PUBLIC OFFERINGS OF ELECTRIC AND GAS UTILITY SECURITIES

Date	Amount	Description	Price To Public	Underwriting Spread	Offering Yield	Moody Rating	Indicated Success Of Offering
<i>Mortgage Bonds and Debentures</i>							
2/10	\$12.0	Louisville G. & E. 1st 3½s 1984	102.46	.36C	3.00%	Aa	b
2/10	12.5	Public Service of Okla. 1st 3s 1984 ..	99.02	.66C	3.05	Aa	a
2/11	5.5	Mystic Valley Gas 1st 3½s 1974	101.79	.86C	3.50	Baa	b
2/18	5.0	Essex Co. Elec. 1st 3½s 1984	100.96	.44C	3.20	A	d
2/18	60.0	Pacific G. & E. 1st 3½s 1984	101.09	.55C	3.07	Aa	b
2/25	5.0	Atlantic City Elec. 1st 3s 1984	100.63	.54	2.97	Aa	d
<i>Preferred Stocks</i>							
2/3	6.0	Mississippi P. & L. 4.36%	101.86	1.73	4.28	—	a
<i>Common Stocks—Subscription Rights</i>							
2/3	6.1	Southwestern Public Service	22.50	N	5.87%	Earnings-Price Ratio 6.6%	a
2/18	4.2	South Carolina E. & G.	14.75	N	5.42	7.8	f
2/25	2.1	El Paso Electric	28	—	5.71	7.5	f
<i>Common Stocks—Offered to Public</i>							
2/19	4.6	Atlantic City Electric	30.13	.84N	4.98%	6.8%	a

a—Reported well received. b—Reported fairly well received. c—Reported issue sold somewhat slowly. d—Reported issue sold slowly. f—Results not yet available. C—Competitive bidding. N—Negotiated underwriting.

FEBRUARY NEW-MONEY FINANCING (In Millions)

	Offered to Stockholders	Sold to Public	Sold Privately	Total Financing
<i>Electric Companies</i>				
Bonds	—	\$ 95	—	\$ 95
Preferred Stock	—	6	\$6	12
Common Stock	\$13	4	—	17
Total	\$13	\$105	\$6	\$124
<i>Gas Companies</i>				
Bonds	—	\$ 6	—	\$ 6
Preferred Stock	—	—	—	—
Common Stock	—	—	—	—
Total	—	\$ 6	—	\$ 6
Total Electric and Gas	\$13	\$111	\$6	\$130

Source—Irrving Trust Company.

FINANCIAL NEWS AND COMMENT

now. However, some of this electricity is produced by industrial companies such as Aluminum Corporation, so that the utilities would not feel the entire blow if atomic reactors should eventually supply the heat used in refining refractory metals.

Some 30 electric companies already are involved in nuclear power studies—18 associated with the Dow Chemical-Detroit Edison group (which also includes Ford Motors, Allis-Chalmers, Babcock & Wilcox, etc.) and 12 working with other engineering, chemical, and construction firms. Thus, the industry is well prepared to take advantage of the commercial development of atomic power if and when recently proposed legislation permits.

Utility v. Industrial Stocks— Long-term Trends

THE logarithmic chart on page 376 shows the trend of the Standard & Poor's price average for 420 industrial stocks as compared with the trends of four utility stock averages—10 utility holding companies, 19 operating companies (almost entirely electric), 7 natural gas companies, and 4 telephone and telegraph companies. Of course the make-up of the averages has changed during the 36-year period; this change was greatest for the holding company average, since many of the old holding companies have now disappeared.

As might have been expected, the holding company average shows the greatest

fluctuation, due to overspeculation in the 1920's as well as the extra capital leverage. It is notable that in 1942 these stocks made a very sharp decline, well below the 1932 low; this was presumably due to the SEC implied threat (later alleviated) to liquidate these companies by sale of their assets "on the barrel head." It is also noteworthy that the holding companies, now integrated and conforming to SEC standards, have had a substantial market comeback.

The average for 19 utility operating company stocks has shown a good recovery, though it has lagged somewhat behind the industrial average over the past five years. The natural gas companies seem to have made a good showing with respect to the postwar advance, despite their troubles over rates. The communications stocks made the poorest postwar showing, but over the years have shown greater stability than the other groups. The percentage increases in the various averages have been as shown in the table below.

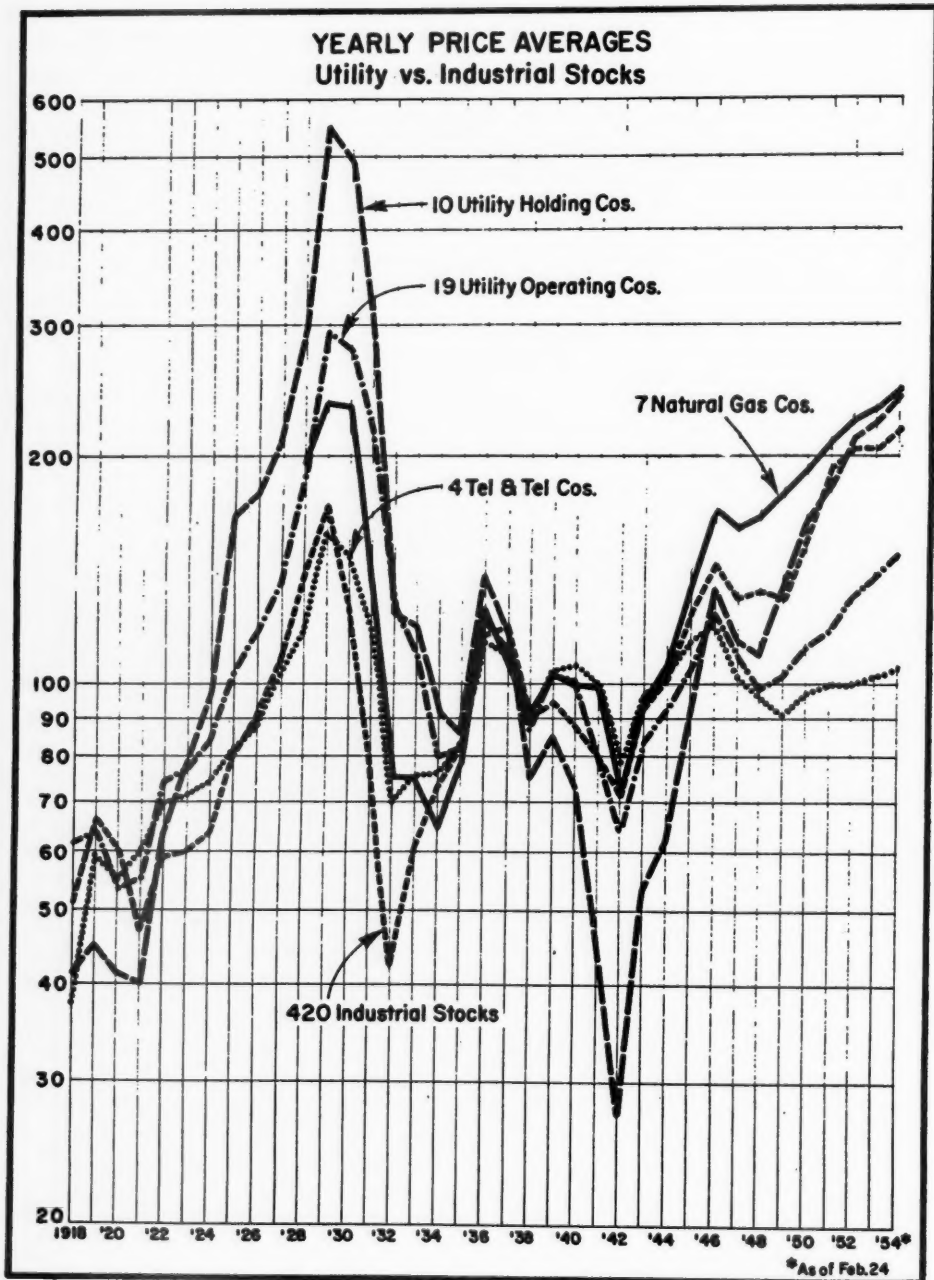
Reducing Statistical Data Required by Federal Agencies

THE electric and gas utilities have been burdened with a great deal of clerical work in filling out the various information forms required by state and federal agencies. Much of this data has been obsolete, overlapping, duplicatory, or of unnecessary detail. The newly constituted Se-

Utility Company Averages

Per Cent Increase	7 Natural Gas Companies	10 Holding Companies	19 Operating Companies	4 Tel. & Tel. Companies	420 Industrial Companies
1929-54	—	488%	143%	81%	324%
1929-54	3%	D56	D49	D34	26
1945-54	84	162	31	D 7	76

PUBLIC UTILITIES FORTNIGHTLY



FINANCIAL NEWS AND COMMENT

curities and Exchange Commission has recently undertaken a general overhauling of its forms and regulations with the idea of reducing unnecessary red tape and eliminating superfluous forms and information.

The Advisory Council on Federal Reports, of which Edwin E. McConnell (controller of Norton Company, Worcester, Massachusetts) is chairman, and which is advisory to the Federal Bureau of the Budget, has also taken an active interest in this work. Two committees of the

council, one on public utility reports and the other on public utility reports to the SEC, are both headed by William G. Bourne, Jr., of Commonwealth Services, Inc. These committees include representatives of the Edison Electric Institute, Ebasco Services, Stone & Webster Service Corporation, Middle West Service Company, and various private utilities or their service affiliates. Representatives of these committees have met with staff members of the SEC and FPC and considerable progress already has been made in the re-



LIST OF NEW YORK BROKERS' UTILITY ANALYSES*

<i>Company Analyses</i>	<i>Firm</i>	<i>No. Pages</i>	<i>Issued</i>
Brockton Taunton Gas Co.	J. G. White & Company	1	Feb.
Brooklyn Union Gas Co.	Argus Research Corporation	2	Feb.
Central Indiana Gas Co.	New York Hanseatic Corporation	2	Feb.
Commonwealth Edison Consolidated Gas, Electric Light & Power Co. (Baltimore)	Reynolds & Co.	1	Feb.
Gary (Theodore) & Co.	Argus Research Corporation	2	Feb.
General Public Utilities Corp.	Amott, Baker & Co.	8	Jan.
Gulf States Utilities Co.	Argus Research Corporation	2	Jan.
Indianapolis P. & L. Co.	Sutro & Co. (San Francisco)	2	Jan.
International Tel. & Tel. Corp.	Josephthal & Co.	2	Feb.
Iowa Public Service Co.	Herzfeld & Stern	2	Feb.
Kansas Gas & Electric Co.	Paine, Webber, Jackson & Curtis	2	Feb.
Michigan Gas & Electric Co.	Paine, Webber, Jackson & Curtis	2	Jan.
Minnesota Power & Light Co.	Paine, Webber, Jackson & Curtis	3	Jan.
Montana-Dakota Utilities Co.	Kidder, Peabody & Co.	12	Dec.
Pacific Power & Light Co.	Kerr & Co.	4	Jan.
Pennsylvania Power & Light Co.	G. A. Saxton & Co.	1	Dec.
Public Service Co. of New Hampshire	Argus Research Corporation	2	Nov.
Puget Sound Power & Light Co.	Ira Haupt & Co.	1	Feb.
Puget Sound Power & Light Co.	Ira Haupt & Co.	2	Dec.
Philadelphia Electric Co.	Josephthal & Co.	2	Jan.
Southern Calif. Edison Co.	Argus Research Corporation	2	Feb.
Southern Calif. Edison Co.	Argus Research Corporation	4	Jan.
Telephone Bond & Share Co.	Paine, Webber, Jackson & Curtis	2	Jan.
Utah Power & Light Co.	Amott, Baker & Co.	**	Jan.
West Penn Electric Co.	Argus Research Corporation	2	Nov.
		2	Jan.
<i>Regular Bulletins and Tabulations</i>			
Monthly Review of Utility Develop- ments	Josephthal & Co.	4	Feb.
Public Utility Common Stocks	G. A. Saxton & Co.	2	Feb.
Public Utilities Bulletin	Eastman, Dillon & Co.	11	Jan.
<i>General Topics</i>			
Electric Utilities Common Stocks	Sutro Bros. & Co.	2	Jan.
Electric Utility Picture	H. Hentz & Co.	2	Jan.
Investors' Preference for Growth Utilities	Sutro Bros. & Co.	1	Oct.
Utilities to the Fore	Francis I. DuPont & Co.	1	Jan.

*Similar lists have appeared in the issues of November 19, September 10, June 4, February 26, 1953; and also in preceding years. **See bulletin on Theodore Gary & Co.

PUBLIC UTILITIES FORTNIGHTLY

duction of information requirements, which may be summarized as follows:

FORM U-14-3, a 48-page form for parent companies in a holding company system, and Form 9-K, a quarterly revenue report form, have been discontinued. Form U-13-60, a report for holding company system service companies, has been substantially simplified, with the burden of work reduced about 30 per cent.

The annual system report for holding companies, Form U5S, already had been simplified in previous years, and holding companies were permitted to file this report in lieu of the information required by Form 10-K. The SEC in February circulated a proposal under the Administrative Procedures Act which would further reduce the present requirements of Form U5S.

The requirements of Form 10-K are also being reduced, and it is probable that

FPC Form 1 (electric) or 2 (gas), accompanied by financial statements contained in the report to stockholders, can be substituted in future (assuming these statements are prepared in accordance with Regulation S-X). FPC Forms 1 and 2 have already been co-ordinated but the committee on public reports is trying to obtain further simplification of these forms as well as more co-ordination between FPC Forms 1 and 12. Minor improvements were effected in Forms 1 and 2 last year, but some of the committee's recommendations have not yet been accepted by the NARUC Committee on Accounts and Statistics. A joint meeting with the NARUC Committee on Accounts and Statistics has been held.

The committee is also trying to reduce the amount of information called for in FPC Form 12, particularly schedules 15 and 18, which deal with peak-load data, new power lines, etc.



DATA ON ELECTRIC UTILITY STOCKS

1953 Rev. (Mill.)		2/26/54 Price About	Div. Rate	Cur- rent Yield	Share Cur. Period	Earnings* % In- crease	12 Mos. Ended	Price- Earnings Ratio	Divi- dend Pay- out	Moody Bond Rating
\$223	S American Gas & Elec.	35	\$1.64 #	4.7%	\$2.49**	6%	Dec.	14.0	66%	—
31	O Arizona Public Service	19	.90	4.7	1.24	14	Dec.	15.3	72	—
8	O Arkansas Mo. Power	21	1.12	5.3	1.63	21	Sept.	12.9	69	—
25	S Atlantic City Elec.	31	1.50b	4.8	1.97	15	Jan.	15.7	76	Aa
5	O Bangor Hydro-Elec.	30	1.80	6.0	2.06	29	Dec.	14.6	87	—
4	O Black Hills P. & L.	21	1.28	6.1	2.00	11	Oct.	10.5	64	—
82	S Boston Edison	51	2.80	5.5	2.96	D1	Dec.	17.2	95	Aaa
18	A California Elec. Pr.	10	.60	6.0	.88	5	Dec.	11.4	68	A
14	O Calif. Oregon Pr.	26	1.60	6.1	1.70	1	Nov.	15.3	94	A
52	S Carolina P. & L.	42	2.00 #	4.8	3.00	2	Jan.	14.0	67	A
21	S Central Hudson G. & E. ...	13	.70	5.4	.96	26	Dec.	13.6	73	—
16	O Central Ill. E. & G.	29	1.60	5.5	2.29	—	Sept.	12.7	70	A
29	S Central Ill. Light	42	2.20	5.2	2.77	7	Dec.	15.2	80	Aa
39	S Central Ill. P. S.	21	1.20	5.7	1.40	1	Sept.	15.0	86	A
9	O Cent. Louisiana Elec.	23	1.00 #	4.3	1.58	8	Dec.	14.6	63	Baa
27	O Central Maine Power	20	1.20	6.0	1.52	7	Jan.	13.2	79	A
95	S Central & South West	24	1.16	4.8	1.65	11	Sept.	14.5	70	—
9	O Central Vermont P. S.	15	.84	5.6	.94**	D18	Nov.	16.0	89	A
89	S Cincinnati G. & E.	21	1.00 #	4.8	1.56	10	Dec.	13.5	64	Aaa
5	O Citizens Utilities	16	.40a	5.5a	.98	13	Sept.	16.3	41	Ba
91	S Cleveland Elec. Illum.	56	2.60	4.6	4.07	18	Dec.	13.8	64	Aaa
3	O Colorado Cent. Power	23	1.20	5.2	1.46	14	Sept.	15.8	82	—
37	S Columbus & S. O. E.	28	1.60	5.7	2.27	15	Sept.	12.3	70	A
326	S Commonwealth Edison	38	1.80	4.7	2.34	8	Sept.	16.3	77	Aaa
9	A Community Pub. Ser.	20	1.00 #	5.0	1.66	22	Sept.	12.0	60	—
1	O Concord Electric	36	2.40	6.7	1.89	D25	(c)	19.0	127	—

FINANCIAL NEWS AND COMMENT

1953 Rev. (Mill.)	(Continued)	2/26/54 Price About	Div. Rate	Cur- rent Yield	Share Cur. Period	Earnings* % In- crease	12 Mos. Ended	Price- Earnings Ratio	Divi- dend Pay- out	Moody Bond Rating
54	O Connecticut L. & P.	17	.88†	5.2	1.01	5	Nov.	16.8	87	Aaa
18	O Connecticut Power	40	2.25	5.6	2.34	D3	Sept.	17.1	96	Aaa
454	S Consol. Edison	43	2.40	5.6	2.94	12	Dec.	14.6	82	Aa
98	S Consol. Gas of Balt.	28	1.40	5.0	1.74**	D4	Dec.	16.1	80	Aaa
158	S Consumers Power	41	2.20	5.4	3.16	31	Dec.	13.0	70	Aa
57	S Dayton P. & L.	39	2.00	5.1	2.63	D8	Dec.	14.8	76	Aa
28	S Delaware P. & L.	30	1.40	4.7	1.85	15	Jan.	16.2	76	Aa
192	S Detroit Edison	30	1.60	5.3	1.93	17	Jan.	15.5	83	Aa
106	A Duke Power	41	1.85	4.5	2.87	29	Sept.	14.3	64	Aaa
82	S Duquesne Light	29	1.60	5.5	2.22	8	Dec.	13.0	72	Aaa
27	O Eastern Util. Assoc.	31	2.00	6.5	2.44	1	Dec.	12.7	82	—
2	O Edison Sault Elec.	10	.50	5.0	.72	1	Sept.	13.9	70	—
9	O El Paso Electric	31	1.60	5.2	2.11	8	Dec.	14.7	76	A
10	S Empire Dist. Elec.	23	1.40	6.1	2.14	14	Sept.	10.7	65	Baa
4	O Fitchburg G. & E.	49	3.00	6.1	3.63	16	(c)	13.5	83	—
32	S Florida Power Corp.	31	1.50	4.8	1.89	26	Dec.	16.4	80	A
70	S Florida P. & L.	40	1.60	4.0	3.07	8	Dec.	13.0	52	A
154	S General Pub. Util.	30	1.70	5.7	2.39	24	Sept.	12.5	71	—
5	O Green Mt. Power	26	1.30	5.0	1.83	3	Sept.	14.2	71	Ba
43	S Gulf States Util.	29	1.20	4.1	1.81	34	Dec.	16.0	66	Aa
21	A Hartford E. L.	55	2.75	5.0	3.29	32	Dec.	16.7	84	Aaa
4	O Haverhill Elec.	41	2.50†	6.1	2.71	5	(c)	15.1	92	—
53	S Houston L. & P.	31	1.20	3.9	2.01	17	Jan.	15.4	60	Aa
6	O Housatonic P. S.	23	1.40	6.1	1.52	5	(c)	15.1	92	—
22	S Idaho Power	47	2.20	4.7	3.35	22	Dec.	14.0	66	Aa
61	S Illinois Power	43	2.20	5.1	2.80	7	Nov.	15.3	77	A
35	S Indianapolis P. & L.	43	2.20	5.1	3.11	D1	Sept.	13.8	71	A
17	S Interstate Power	11	.64	5.8	.94	12	Sept.	11.7	68	Baa
23	O Iowa Elec. L. & P.	21	1.20	5.7	1.58	14	Nov.	13.3	76	—
28	S Iowa-III. G. & E.	31	1.80	5.8	2.26	4	Nov.	13.7	80	Aa
29	S Iowa Power & Light	26	1.40	5.4	1.94	11	Dec.	13.4	72	Aa
25	O Iowa Pub. Service	24	1.40	5.8	1.86	16	Jan.	12.9	75	A
11	O Iowa Southern Util.	21	1.20	5.7	1.61	16	Jan.	13.0	74	Baa
46	S Kansas City P. & L.	34	1.80	5.3	2.42	11	Dec.	14.0	74	Aaa
22	O Kansas Gas & Elec.	42	2.00	4.8	3.44	19	Jan.	12.2	58	A
34	S Kansas Pr. & Lt.	19	1.12	5.9	1.32	D7	Dec.	14.4	85	Aa
31	O Kentucky Utilities	21	1.12	5.3	1.70	12	Sept.	12.3	59	A
6	O Lake Superior D. P.	34	2.00	5.9	2.87	10	Sept.	11.8	70	A
6	O Lawrence Electric	30	1.70†	5.7	2.38	D10	(c)	12.6	71	Aa
67	S Long Island Lighting	18	1.00	5.5	1.23**	D2	Dec.	14.6	81	A
39	S Louisville G. & E.	44	1.80	4.1	3.28	14	Dec.	13.4	55	Aa
6	O Lowell Elec. Lt.	57	3.35†	5.9	3.63	D2	(c)	15.7	92	—
8	O Lynn G. & E.	28	1.60	5.7	2.14	14	Dec.	13.1	75	Aa
6	O Madison G. & E.	37	1.60	4.3	2.71	10	(c)	13.7	59	Aa
3	A Maine Public Service	23	1.40	6.1	1.81	44	Nov.	12.7	77	Baa
5	O Michigan G. & E.	33	1.35#	7.1a	2.83	2	Sept.	11.6	48	Baa
127	S Middle South Util.	29	1.40	4.8	1.98	14	Dec.	14.6	71	—
20	S Minnesota P. & L.	22	1.20	5.5	2.02	22	Jan.	10.9	59	A
2	O Miss. Valley P. S.	24	1.40	5.8	2.13	20	Jan.	11.3	66	—
9	A Missouri P. S.	31	1.80	5.8	2.37	13	Dec.	13.1	76	—
5	O Missouri Utilities	20	1.00	5.0	1.63	4	Dec.	12.3	61	—
31	S Montana Power	33	1.60	4.8	2.62	D3	Dec.	12.6	61	Aa
16	A Mountain States Pr.	19	.84	4.4	1.31	15	Nov.	14.5	64	Baa
117	S New England Elec.	15	.90	6.0	1.22**	D2	Sept.	12.3	74	Baa
38	O New England G. & E.	16	1.00	6.3	1.36**	6	Dec.	11.8	74	Baa
41	O New Orleans P. S.	42	2.25	5.4	2.92	5	Nov.	14.4	77	A
2	O Newport Electric	37	2.00	5.4	3.10	10	Dec.	11.9	65	—
68	S N. Y. State E. & G.	38	1.90	5.0	2.56	13	Jan.	14.8	74	A
204	S Niagara Mohawk Power ..	29	1.60	5.5	2.03	16	Dec.	14.3	79	Aa
63	O Northern Ind. P. S.	28	1.60	5.7	2.40	4	Nov.	11.7	67	A
110	S Northern States Pr.	15	.80	5.3	1.10	8	Dec.	13.6	73	Aa
8	O Northwestern P. S.	15	.90	6.0	1.39	2	Sept.	10.8	65	A
109	S Ohio Edison	40	2.20	5.5	3.14**	5	Jan.	12.7	70	Aa
35	S Oklahoma G. & E.	28	1.50	5.4	1.87	3	Jan.	15.0	80	A
14	O Otter Tail Power	26	1.50	5.8	2.23	8	Dec.	11.7	67	—

PUBLIC UTILITIES FORTNIGHTLY

1953 Rev. (Mill.)	(Continued)	2/26/54 Price About	Div. Rate	Cur- rent Yield	Share Cur. Period	Earnings*— % In- crease	12 Mos. Ended	Price- Earnings Ratio	Divi- dend Pay- out	Moody Bond Rating
364 S	Pacific G. & E.	41	2.20	5.4	3.12**	24	Dec.	13.1	71	Aa
22 O	Pacific P. & L.	23	1.20	5.2	1.73	D4	Dec.	13.3	69	Baa
106 S	Penn. Power & Light	41	2.40	5.8	2.94	21	Dec.	14.0	68	A
8 A	Penn. Water & Power	39	2.00	5.1	2.13	D8	Dec.	18.3	94	A
185 S	Philadelphia Elec.	34	1.60	4.7	2.35	8	Oct.	14.5	68	Aaa
27 O	Portland Gen. Elec.	35	2.00	5.7	2.55	3	Dec.	13.7	78	Baa
50 S	Potomac Elec. Power	18	1.00	5.6	1.15	3	Dec.	15.6	87	Aa
56 S	Pub. Serv. of Colo.	35	1.60	4.6	2.33	14	Sept.	15.0	69	Aa
230 S	Pub. Serv. E. & G.	27	1.60	5.9	1.80	15	Dec.	15.0	89	Aa
59 S	Public Serv. of Ind.	37	2.00	5.4	2.34	10	Nov.	15.8	85	Aa
21 O	Public Serv. of N. H.	29	1.80	6.2	1.86	D9	Dec.	15.6	97	A
8 O	Public Serv. of N. M.	12	.68	5.7	.81	14	Sept.	14.8	84	—
20 O	Puget Sound P. & L.	27	1.50	5.5	1.89	28	Jan.	14.3	80	Baa
46 S	Rochester G. & E.	44	2.24	5.1	3.30	23	Dec.	13.3	68	A
11 O	Rockland L. & P.	14	.60	4.3	.68	11	Sept.	20.6	88	A
7 S	St. Joseph L. & P.	21	1.20	5.7	1.69	20	Sept.	12.4	71	A
36 O	San Diego G. & E.	15	.80	5.3	1.16	2	Dec.	12.9	69	Aa
7 O	Sierra Pacific Pr.	33	2.00	6.1	2.64	11	Dec.	12.5	76	Baa
140 S	So. Calif. Edison	40	2.00	5.0	2.66	D10	Dec.	15.1	75	Aa
29 S	So. Carolina E. & G.	16	.80	5.0	1.15	45	Dec.	13.9	70	Baa
5 O	Southern Colo. Pr.	13	.70	5.4	1.16	25	Nov.	11.2	60	—
180 S	Southern Company	16	.80	5.0	1.25	10	Jan.	12.8	64	—
13 S	So. Indiana G. & E.	26	1.50	5.8	2.21	18	Jan.	11.8	70	Aa
1 O	Southern Utah Power	15	1.00	6.7	1.67	46	(c)	9.0	60	—
3 O	Southwestern E. S.	18	.96	5.3	1.41	4	Aug.	12.8	68	—
31 O	Southwestern P. S.	25	1.32	5.3	1.70	19	Dec.	14.7	78	A
17 A	Tampa Electric	53	2.80	5.3	3.55	9	Dec.	14.9	79	Aa
109 S	Texas Utilities	47	2.08	4.4	3.33	14	Dec.	14.1	62	Aa
34 S	Toledo Edison	13	.70	5.4	.93	—	Dec.	14.0	75	A
10 O	Tucson G. E. L. & P. ...	19	.92	4.8	1.40	15	Dec.	13.6	66	—
103 S	Union Elec. of Mo.	23	1.20	5.2	1.36	11	Dec.	16.9	88	Aa
25 O	United Illuminating	46	2.40†	5.2	2.73	15	(c)	16.8	88	—
2 O	Upper Peninsula Pr.	19	1.20	6.3	1.49	7	Dec.	12.8	81	Baa
30 S	Utah Power & Light	35	2.00	5.7	2.61	1	Jan.	13.4	76	A
84 S	Virginia E. & P.	29	1.40	4.8	1.78	13	Dec.	16.3	79	Aa
22 S	Washington Water Pr.	28	1.60	5.7	1.79	10	Jan.	15.6	89	A
115 S	West Penn Elec.	39	2.20	5.6	3.41	7	Nov.	11.4	65	—
60 O	West Penn Power	42	2.10†	5.0	2.39	7	Sept.	17.6	88	Aa
9 O	Western Lt. & Tel.	28	1.60	5.7	2.56	31	Nov.	11.0	63	A
22 O	Western Mass. Cos.	35	2.00	5.7	2.55	26	Dec.	13.7	78	—
84 S	Wisconsin Elec. Pr.	30	1.50	5.0	2.01	4	Dec.	14.9	75	Aa
31 O	Wisconsin P. & L.	23	1.20	5.2	1.65	15	Sept.	13.9	73	A
30 S	Wisconsin Pub. Ser.	19	1.10	5.8	1.54	13	Dec.	12.3	71	A
Averages				5.4%				14.0	73%	

Foreign Companies††

\$187 S	American & Foreign Pr. ..	9	\$.60	6.7%	\$2.36	22%	Sept.	3.8	25%	—
170 A	Brazilian Trac. L. & P. ..	8	.03b	—	2.96	20	(c)	2.7	—	—
53 A	British Columbia Pr.	20	1.00	5.0	1.45	NA	Sept.	13.8	69	—
15 A	Gatineau Power	23	1.20	5.2	1.62	25	(c)	14.2	74	Baa
26 O	Mexican L. & P.	9	—	—	***	—	—	—	—	—
8 A	Quebec Power	23	1.20	5.2	1.28	9	(c)	18.0	94	Baa
40 A	Shawinigan Water & Pr. ..	41	1.45	3.5	1.91	4	(c)	21.4	76	Baa

B—Boston Exchange. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. D—Decrease. NC—No comparable figures available. *If additional common shares have been recently offered, earnings are adjusted to give effect to the offering. Percentage change is in the net income available for common stock. Tax savings resulting from accelerated amortization of defense facilities are excluded (when separately reported). **Based on average number of shares. ***Potential earnings are estimated in the neighborhood of \$2. a—Also regular annual 3 per cent stock dividend, which is included in the yield. b—Also 5 per cent stock dividend. c—Calendar year 1952. # Also occasional stock dividends. †Estimated (rate irregular or includes extras). ††With the exception of American & Foreign Power, these stocks are also listed in Canada, and the Canadian prices are here used. NA—Not available.



What Others Think

Reading Racks: New Industry Communication Tool

YMCA lobbies have long boasted information racks; they are standard equipment in Christian Science study rooms; and American churches used them as far back as Civil War days.

It's somewhat surprising, therefore, that industry bypassed this tool of communications for so long. As a matter of fact, the recognized pioneer in the industrial field, General Motors, started its information rack program only five years ago.

Since that time, an estimated 1,700 companies have inaugurated their own programs. They include stalwarts such as United States Steel, U. S. Rubber, Western Electric, DuPont, Alcoa, and Swift & Company. But the programs are not limited to large companies. In fact, W. H. Lane of General Motors' employee relations staff says, "There are more small companies using racks than large companies. The program is practical for any company, regardless of size." Mr. Lane knows his reading racks too: In the first four and one-half years of their program, GM distributed almost 60,000,000 booklets to its employees. As he points out, some people say, "GM puts out more booklets than cars."

Analyzing the merits of information racks—or reading racks, as they're called

out here in the West—it's even more surprising that American industry did not start using them sooner. Perhaps the most important value of the programs lies in this key phrase: voluntary communication.

For there is certainly psychological merit in offering information to employees rather than "forcing" it on them. The employee can either take a booklet or disregard it. When he does take it, it is he who has made the choice—and since it was his idea to pick it up, it is likely that he will read the booklet and absorb its contents.

A READING rack program contributes to successful communications in other ways, too. It strengthens the company's reputation as a reliable source of information. It appeals to the "whole" individual, and such an appeal is sound because it helps build happier, safer, more productive workers.

At Arizona Public Service, the reading rack program presents two bonus values. First, it establishes another link between far-flung offices and plants in a 37,000-square-mile service area. Secondly, it contributes to the company's public relations program, in that extra booklets, identified with Arizona Public Service and Reddy

PUBLIC UTILITIES FORTNIGHTLY

Kilowatt, are distributed to public libraries, schools, and hospitals.

Setting up a reading rack program presents several problems: The racks themselves, balance and sources of material, method of distribution, and total cost. Since the program at Arizona Public Service is just six months old, it would be presumptuous to offer absolute solutions to these problems. Yet, certain trends are discernible and the kinks in the mechanics of the program have been ironed out. Our experience, therefore, may be helpful to other utilities weighing the merits of reading racks.

Company carpenters designed and constructed 56 racks, which they mounted at main traffic points throughout the company—usually below or next to bulletin boards. Measuring 28 inches long, 15 inches high, and 6 inches deep, the racks are large enough to hold 25 copies of each of four booklets. Company painters and artists put on the finishing touches: Reddy wearing a 10-gallon hat, and the words "Have You Read These? Take One!" Finally, racks were built into large bulletin boards at four main traffic points—cafeteria, steam plant, and loading locations for line crews and for gas crews. The cost of each rack, including labor, was \$6.

PROBABLY the main problem in setting up any rack program is establishing a balance of material and finding sources to maintain the balance. Interests naturally vary from company to company. Armstrong Cork rates popularity in this order: home and garden, sports, free enterprise, anti-Communism, business and economics, education and general interest, safety and fire prevention, health. But Minnesota Mining & Manufacturing Company finds its employees most interested in sports, home workshops, and hu-

man interest material. And Swift & Company discovered that free enterprise, economics, and the company itself were the most popular subjects.

At Arizona Public Service, the balance divides about evenly into five groups: human relations and inspirational; safety and health; home, hobbies, and personal economics; free enterprise; and the electric and gas industries.

The company beginning a program can follow one of two courses to secure its materials. It may use a professional reading rack service or develop its own list of sources. Best known rack services are Good Reading Rack Service, 76 Ninth avenue, New York city, and the National Research Bureau, 415 North Dearborn, Chicago. Both provide a wide choice of good screened materials and both offer additional services such as racks, posters, and surveys on the effectiveness of the program.

AT Arizona Public Service, however, we decided to experiment and develop our own sources of materials, believing that this would be more economical and at the same time offer a greater variety of booklets—particularly about our own industry. Sources which we have used most frequently, but by no means exclusively, are General Electric, General Motors, Kiplinger's *Changing Times* magazine, the National Association of Manufacturers, and *Reader's Digest*.

General Electric offers a series of comic books on electricity, electronics, the atom, jet power, transmission, and other phases of our product. In addition, it has non-comic, but well-illustrated booklets on turbines, the atom, the life of Steinmetz and the life of Edison. All are available in quantity, free of charge, from the Public Relations Services Division, General Electric, Schenectady 5, New York.

WHAT OTHERS THINK

General Motors offers 90 booklets on all types of reading rack subjects at extremely reasonable prices. While the booklets have a GM imprint, a company's identification sticker may be added at negligible cost. The list of pamphlets and samples of them are available through W. H. Lane, personnel and employee relations staff, General Motors, Detroit 2.

Kiplinger's *Changing Times* magazine contains articles on everyday economics which are simply but authoritatively written and cleverly illustrated. Reprints are economical and, at Arizona Public Service, very popular. They may be obtained from *Changing Times*, 1729 H street, N.W., Washington 6, D. C.

The National Association of Manufacturers puts out inspirational and economic booklets which are well done and reasonably priced. They are available from the NAM, 14 West 49th street, New York city.

Reader's Digest articles are also available at reasonable prices, and the pickup rates suffer only because so many employees have previously read the articles. Reprints are available from the *Digest* at Pleasantville, New York.

THERE are, of course, many other sources of good booklets. The electric industry's Public Information Program council, Bozell & Jacobs, has a list of 21 agencies interested in the American economic system. Other sources for economic information include the Bureau of National Affairs, 1231 24th street, New York city; Economics Press, P. O. Box 460, Montclair, New Jersey; Tax Foundation Inc., 30 Rockefeller Plaza, New York city; and the National Tax Equality Association, 231 South LaSalle, Chicago.

Exceptional human relations booklets, by Elmer Wheeler and William J. Reilly, are available through Prentice-Hall, and

at least three other publishers offer booklets printed especially for reading rack use. These are Birk & Company, 270 Park avenue, New York city; Mercer Publishing Company, 6 East 53rd street, New York city; and Stevens Publications, 139 East 52nd street, New York city.

Many insurance companies offer their clients booklets on health, safety, fire prevention, and social problems; Aetna has already supplied our company with ten booklets, in quantity. In addition, many large companies (such as Gerber's Baby Foods) offer booklets as good-will builders. Some include advertising, however, and may be unsuitable for rack distribution.

Women's magazines, particularly *Today's Woman*, frequently list pamphlets to write for; Arizona Public Service has found many of these worth investigation. Finally, General Motors will supply, on request, an extensive list of sources of material it has used, and Report No. 125 of the National Industrial Conference Board lists about 80 sources.

EVEN with 56 reading rack locations, distribution is not a major problem in our company. Mail-room employees stamp all booklets "Employee Reading Rack Service, Arizona Public Service Company" and then mail them, in envelopes, to supervisors at rack locations. When the supervisor receives new material, he removes left overs and returns them to the personnel department via company or U. S. mail. Thus, pickup rates for each rack location are established and then recorded in personnel. Booklets which have been returned are given through our local managers, to libraries, schools, and hospitals.

To a great degree, the number of booklets placed in the racks depends on trial and error. One survey of 10 representa-

PUBLIC UTILITIES FORTNIGHTLY

tive companies shows that the average number of exposed employees who use the racks varies from a total of 35 per cent to a total of 61 per cent. The professional rack services believe that about 50 per cent of employees exposed to the racks will pick up the booklets. The experience of Arizona Public Service bears this out; from month to month, about half of our employees are picking up the booklets.

Worth noting is the fact that no set patterns, employee-wise, have appeared. While some locations are weaker than others, the pickup rates show that laborers and line crews, accountants and engineers, all read a booklet if it is good—there is little variation in the rate by type of work performed. Indications of this were the pickup rates for two recipe booklets, put out at different times. It was expected that *Backyard Cookery* and *Modern Menu Magic* would have their greatest pickup rates in the main office building, where most of the company's women employees work. But the pickup was just as high at the steam plant and at crew locations, where all employees are male.

It might also be expected that free enterprise booklets would suffer from the competition of pamphlets about hobbies or sports. The company has been pleased to find, however, that such is not the case. While free enterprise booklets generally are lowest in the pickup rates, the difference is hardly substantial—about 800 of the 1,900 exposed employees regularly read free enterprise material; slightly over 900 pick up the other booklets.

THE final problem in setting up a reading rack program is the cost of materials. A study by Metropolitan Life Insurance Company points out that annual costs per employee range from 50 cents

to \$2. The two main reasons for this wide spread are (1) differences in original cost of booklets and (2) differences in the number of booklets put out each time. The reading rack services figure that a 50 per cent pickup rate, on the basis of one booklet a week at six cents each, costs about \$1.56 per employee annually.

Actually, costs can be cut by using the variety of free materials mentioned earlier in this article. At Arizona Public Service, a colored highway map, supplied free of charge by the Arizona Highway Department, has been the most popular insert.

Other free materials, particularly the comic books from General Electric, have been highly popular.

Utilities could cut costs of their programs in still another way. Quantity buying is economical. This is probably more accurate in regard to printed material than anything else. Since the interests of utilities are so often parallel, a central "clearinghouse" for reading rack materials could save each participating company hundreds of dollars annually. To illustrate, by buying one publisher's human relations booklets in quantities of 7,000 instead of 1,000, a saving of 40 per cent occurs. Discounts of other publishers are at least as great.

Thus, if as few as six companies participated, each could save over \$1,500 annually, assuming use of six booklets a month, 1,000 copies of each. Arizona Public Service is on record as willing to discuss the feasibility of such a plan.

IN summing up reading racks, then, we repeat that our experience over a 6-month period is not conclusive. Nevertheless, it is felt that they have made a definite contribution to our communications-education program. They improve employee relations, add to productivity, and spread

WHAT OTHERS THINK

understanding of the American economic system. Since these goals are catholic in our industry, we believe reading racks to

be well worth attention and thought by progressive management.

—JOHN E. BOULET

Employee Relations Go Self-serve

SEVERAL years ago, General Motors hit upon a new idea in employee relations—a way to get employees to read about company matters that they ought to understand, for their own interest as well as that of the company.

Like most ideas that work, it was simple—self-service applied to reading matter.

Racks were placed around the premises, to hold booklets that workers could pick up if interested. It turned out that about half of them would read right along, and when a timely subject was going, many more would read. A timely subject—income tax in early spring!

This company has to date had a “take” of more than 40,000,000 booklets, on 225 subjects. Other companies across the land have adopted the reading rack, and there are reading rack services that supply racks, booklets, and guidance. The Metropolitan Life Insurance Company has just published a report on reading racks—it is an interesting angle on health and safety for millions of workers under group insurance. This report can be obtained from Metropolitan's regional offices.

The racks are varied in design, some on stands, others attached to walls, or standing on desks. They hold from two to five different booklets, according to the number of employees served, two or three pieces of reading matter being placed where there are fewer than a hundred workers. One large western utility company with 75,000 employees scattered over several states, has about 700 racks in offices, shops, and warehouses. As in the supermarket, a good location and good display are important. Some companies

change one booklet every week, others change more, still others keep a larger assortment in the racks for a longer time.

The “take” not only furnishes an exact record of what employees like to read, but is exciting because the company is now in competition with professional editors, catering to reading interests.

A PART from “influencing” employees on controversial matters, a business concern can present subjects of mutual interest.

Just now, utility companies are applying for higher rates. Employee understanding of the facts can be a factor in building public opinion. Such subjects tend to get the legal, special pleading treatment when presented alone, but on reading racks, in competition as reading matter, they get better writing. Very often an executive's man-to-man talk at a lunch club makes a good presentation.

Other company subjects that have had a good “take” are reported by one utility system as follows:

How products are used; how products work; how they are made; history of the company; pensions and benefits; scientific research; how the company is run; company personnel; company income and outgo.

But company subjects probably average less than one-tenth of the total. One of the reading rack services that publishes booklets reports this national popularity of subjects:¹

¹ Good Reading Rack Service, 76 Ninth avenue, New York 11, New York.

PUBLIC UTILITIES FORTNIGHTLY

	<i>Per Cent</i>
1. Social and economic problems, business, government, profits, jobs, taxes, productivity, incentives	30-35
2. Home and recreation, cooking, child care, sewing, gardening, sports, hobbies, home repairs, personal finance	20-25
3. Inspirational and self-help, moral and spiritual guidance, how to get along with others	20-25
4. Health and safety at home and at work, accident and fire prevention, first aid, personal hygiene, safety equipment	10-15
5. Americana, patriotic booklets such as lives of great Americans, good citizenship, American traditions	5-10

The interest in social and economic subjects is, of course, favorable for readable presentations of company problems.

RREADING matter is selected by a screening committee, or personnel executives, or experienced editors in charge of employee magazines. Some companies purchase all material from a rack service, others use such service in connection with booklets and articles from various sources. Convention papers, articles in the technical press of the industry, and magazine articles are selected and reprinted, with permission. Choice of reading matter is guided by "takes."

Booklets cost all the way from a couple of cents up to a quarter per copy, but a general average of five cents, or a couple of dollars yearly per employee, is a close general estimate. Reprints of PUBLIC UTILITIES FORTNIGHTLY articles, frequently used, range from 4½ to 10 cents a copy, for articles of 4 to 12 pages.

Racks sold by service companies range

from \$3 for a small wire wall rack to hold three booklets, up to \$45 to hold five titles and serve 500 people.

Merchandising the reading rack is desirable, and does not affect freedom of choice. Sometimes a particular booklet will be displayed by itself. Posters call attention to timely or popular booklets. "Help Yourself" is lettered on most racks, and "Have You Read This?" will call attention to a particular booklet.

RREADING racks are now being used by all industry, according to this summary by a rack service: automotive, aviation, banks, brokers, building materials and equipment, drugs and chemicals, electrical equipment, foods and beverages, glass and ceramics, insurance, metals and manufacturing, mining and smelting, motor transport, office equipment, petroleum products, printing and publishing, public utilities, rubber products, steel and iron, textiles and apparel.

Employee attitude surveys show almost universal approval of reading rack material. The most obvious employee objection would be "Why is the company spending all this money on reading matter?" It has almost never been raised. In one large organization 98.7 per cent of employees said they liked the service; 86 per cent that they picked up booklets regularly; 60 per cent that they read all the booklets taken; 95 per cent that they took booklets home; 91 per cent that booklets were read by other members of the family.

Other figures for a large company show that rack reading is done most by employees who have been with the company from five to twenty years; have graduated from high school, but not college; who are from thirty to fifty-odd years of age.

Briefly, the backbone of the organization!

—JAMES H. COLLINS

The March of Events



FPC Reports on Natural Gas Projects

THE Federal Power Commission recently reported that it approved construction of some \$176,600,000 of new natural gas transmission facilities during the last six months of 1953, including 1,909 miles of new pipeline.

These new facilities, FPC Chairman Kuykendall said, will increase the daily delivery capacity of the nation's natural gas transmission systems by nearly one-half billion cubic feet.

Mr. Kuykendall said that \$143,400,000 of the total construction cost was spent on

major projects—those costing \$700,000 or more. These projects, he said, will increase the daily delivery capacity of the individual transmission systems by more than 401,000,000 cubic feet of natural gas. They involve construction of about 1,568 miles of pipeline and installation of compressor facilities totaling 95,560 horsepower.

During all calendar 1953, the FPC granted certificates for the construction of 6,800 miles of pipeline and installation of compressor units totaling 544,180 horsepower.

Total estimated cost of these facilities was \$725,600,000.

California

To Study Zone Fares

THE public utilities commission, chief custodian of San Francisco's public transportation problems, recently decided to ask for \$25,000 extra in next year's city budget to study a zone fare structure for the Municipal Railway.

Zone fares are used in Los Angeles, Seattle, and by the Key System on the Pacific coast, and in many eastern and middle western cities. Zones are established from the core of the city outward. Passengers riding to the farthest zones pay maximum

fare while short-distance riders pay reduced fares.

Mayor Robinson's San Francisco Forward Committee had suggested the commission examine the possibility of zone fares in the city, and the mayor had sent the suggestion to the commission. The railway's consultant told the commissioners that an adequate zone fare survey would take "six weeks to two months for ten men."

He recommended two transit engineering firms that could make the study for about \$12,000 to \$25,000.

Georgia

Asks Gas Rate Boost

THE Atlanta Gas Light Company last month filed application with the state public service commission for an increase in natural gas rates for 37 Georgia cities and two in South Carolina. The company proposes a general rate adjustment which, it said, will produce an increase of \$2,030,000 over its gross operating revenues for the past year.

A spokesman for the gas company said the effect of the proposed increase on individual consumer rates had not yet been determined but would be announced at the time of the hearing before the commission.

Commission Order Stalled

AN injunction to restrain the state public service commission from enforcing a show-cause order against the Georgia Power Company and the Georgia Power

& Light Company stalled in Fulton Superior Court recently.

The commission issued a rule nisi on December 16, 1953, ordering the two companies to show cause why the Georgia Power Company should not sell power to Georgia Power & Light and why Georgia Power & Light should not buy its electricity needs from Georgia Power.

GP&L, a subsidiary of the Florida Power Company, operates in about 20 south Georgia counties. It buys practically all of its power from Florida Power. The commission contends GP&L could save substantially by buying from Georgia Power at the current REA municipal rate or \$300,000 at the regular industrial rate.

Judge Virlyn B. Moore on February 25th issued a temporary restraining order halting commission action until legality of the plan is tested in court. He scheduled a court hearing for March 22nd.

Louisiana

Seek to Block Gas Shortage

THE Lafourche parish police jury has passed a resolution calling upon the governor and other public officials to work for legislation to prevent a shortage of Louisiana natural gas for use within the state.

The resolution, adopted unanimously, called either for "an act to make it mandatory for natural gas to be made available for Louisiana home consumption or to amend the existing conservation laws

by empowering and obligating the minerals division of the conservation department to curtail the production of natural gas by fixing the natural gas allowables on all wells producing natural gas which is sold into interstate commerce so that there shall be sufficient volumes of natural gas available for intrastate use."

To accomplish this, they propose that the allowables shall be fixed so that the volume entering interstate commerce shall be maintained at one-eighth of the volume needed for intrastate use.

Michigan

Receipts Tax Applied to Utilities

ABILL to bring rural electric co-operatives and oil and gas pipelines under

the state's new business receipts tax was given final passage by the state legislature recently and sent to the governor for signature.

THE MARCH OF EVENTS

Ohio

Ohio Telephone Convention

"KEEPING Pace with Progress" will be the theme of the Ohio Independent Telephone Association's fifty-ninth annual convention at the Deshler-Hilton hotel at Columbus March 29th to 31st.

Warren B. Clay, president of the United States Independent Telephone Association, will give the keynote address on opening day. Among the speakers are: Charles F. Kettering, research consultant, General Motors Corporation, Detroit; Mayor M. E. Sensenbrenner of Columbus; Robert L. Moulton, Columbus, chairman, Ohio Public Utilities Commission; Dr. Tennyson Guyer, Findlay, Ohio, "Ohio's ambassador of good will"; L. E. "Cy" Frailey, Columbus, nationally known authority on business letters; Carveth P. Mitchell, Mansfield, Ohio; and Roscoe R. Walcutt, Columbus, attorney. Speakers at the special ladies' events include Dr. Frances P. Weisenberger, Columbus, co-

author of *History of Ohio*, and Mrs. Hulda Wells, Columbus newspaper food editor. Richard R. Waltz, president of the Delta Home Telephone Company, Delta, Ohio, is slated to preside as president of OITA.

Pay-as-you-go Rewiring Plan

A RECENT Associated Press dispatch from Cincinnati tells of an interesting plan of the Cincinnati Gas & Electric utility for a pay-as-you-go system to take care of the expense of rewiring older homes.

According to the Associated Press, the home owner and electrical contractor decide what is to be done. The contractor does the job and bills the utility, which adds the cost to the monthly electric bill, spreading the amount over a maximum of thirty-six months.

Inspectors estimate that 85 per cent of the homes in Cincinnati are inadequately wired for electricity, the dispatch said.

Rhode Island

Gas Rates Cut

A NATURAL gas rate decision, approving proposed rates for space heating but directing the Providence Gas Company to file within fifteen days revamped rates for three other classes of users, was handed down last month by Public Utility Administrator Thomas A. Kennelly.

The administrator approved the suggested schedule for space heating of homes or nondomestic buildings because the gas company had reduced that rate structure sharply in a bid for new business.

But in balking at proposed rates for three other classes of users, including householders (the average customers who use gas for any purpose other than space

heating), Kennelly ordered the gas company specifically to slash \$100,000 from yearly revenues in those categories.

Kennelly ordered stricken from all five proposed classes of tariffs an escalator clause by which the gas company could have raised rates automatically every time the Federal Power Commission might approve higher rates for pipeline company suppliers. He also reduced a proposed \$1 minimum monthly bill to 50 cents.

The company, Kennelly said, has made known its intent to subordinate rate of return in 1954 in favor of obtaining increased earnings in future years. For that reason, he made no determination of what he would approve as a rate base.



Progress of Regulation

Gas Sales at Wholesale Not a Utility Activity

A NATURAL gas pipeline company, making direct gas sales to specified industries, is not a public utility within the meaning of the Illinois Public Utilities Act, according to the supreme court of Illinois. In so holding, the court affirmed a lower court judgment reversing an order of the Illinois commission finding the Mississippi River Fuel Corporation to be a public utility.

The company operates a natural gas pipeline extending from Louisiana and Texas to Missouri and Illinois. It sells natural gas to public utilities for resale to the public, as well as making direct gas sales to a limited number of selected industries.

The court said the mere fact that the product sold by a company is one which is ordinarily sold by a public utility does not of itself render the seller a public utility.

Charter Limitation

The court noted that the company's articles of incorporation declared that it is not to be a public utility corporation. The commission, it said, is not vested with authority to require a corporation to act *ultra vires*. Furthermore, the company did not exercise the right of eminent domain in laying its pipelines in the state, and it never accepted any franchise to sell gas.

Nor has it established uniform rates for industries.

The effect of this decision on the general public was recognized by the court, which said:

The interest of the general public, in the area served by Mississippi, is in obtaining an adequate supply of gas at reasonable prices from and through the public utility to which Mississippi supplies natural gas for resale. Such public utility is subject to regulation by the Illinois Commerce Commission. Mississippi is subject to the exclusive regulation and control of the Federal Power Commission in so far as the supply of gas furnished by it to the public utility and the rates charged therefor are concerned.

The regulation and control of both supply and rates by the Federal Power Commission, so far as Mississippi is concerned, and the regulation of the public utility supplying gas to the general public by the Illinois Commerce Commission adequately protect the general public without converting the remainder of Mississippi's operation, which is strictly and clearly a private corporate sales activity in competition with other unregulated fuels, into a public utility.

PROGRESS OF REGULATION

Chief Justice Dissents

Chief Justice Schaefer dissented on the ground, among others, that the company holds a certificate to operate under the Natural Gas Act. That fact alone, in his opinion, subjected the company to the jurisdiction of the state commission. He pointed out that the company's entire business is the transportation and sale of gas. To hold that by restricting its industrial sales to a selected group of the most desirable customers, the company could require the court to regard such sales as for private use was, in his opinion, to condition the application of the statute upon the willingness of a company to comply with it.

Judge Schaefer pointed out that one of

the purposes of the state Public Utilities Act is to protect established utilities from competition. In this case the pipeline company competes directly with the utilities to which it sells. He felt that the competition might have important results for those utilities and their consumers.

The fact that the company had not exercised its power of eminent domain did not seem significant to Judge Schaefer. By virtue of its certificate of convenience and necessity the company has that power if it desires to exercise it, he said. Nor did the fact that the company sold to its industrial consumers at varying rates militate in its favor. *Mississippi River Fuel Corp. et al. v. Illinois Commerce Commission*, 116 NE2d 394.



SEC Lacks Jurisdiction over Nonutility Subsidiary's Acquisition of Gas Wells, Leases, and Pipelines

THE Securities and Exchange Commission dismissed, for lack of jurisdiction, a nonutility subsidiary company's application for approval of the acquisition of gas leases, gas wells, and pipelines. The application indicated that, while the wells were still producing, the purchasing company intended to use the acreage for storage purposes only.

Section 9(a) of the Holding Company Act requires commission approval for any registered holding company or subsidiary company to acquire, directly or indirectly, any securities or utility assets or any other interest in any business. In this case the purchasing company is not a gas company and its properties could not constitute "utility assets" within the meaning of the statute.

The proposed acquisition of gas leases was held to be exempt from the statute in view of the fact that the company can be said to be "primarily engaged in the production of natural gas" within the mean-

ing of Rule U-49 (d) (1), although that production does not seem to be its major function. The production of natural gas is of a substantial nature, however.

The commission held that the gas reserves and pipelines and other appurtenant property did not constitute "any other interest in any business." It concluded that the word "business" means something more than property as such. The company in this case was not proposing to acquire any portion of the "business" of a natural gas company, nor any interest therein. It merely proposed to acquire some property which it would incorporate into its own existing business as an integral and essential part. Consequently, the acquisition of the gas reserves and pipelines and appurtenances, under the circumstances, was held not subject to § 9(a)(1) of the Holding Company Act. *Re New York State Nat. Gas Corp. File No. 70-3164, Release No. 12257, December 14, 1953.*

Demand and Energy Requirements Affect Allocations for Intrastate Electric Rate Making

A TEMPORARY rate increase authorized for an electric company (98 PUR NS 12) was allowed by the Washington commission to be made permanent. The temporary increase had been authorized after it had been found that a return of 5.85 per cent was fair and adequate.

Results of operation presented by both the company and commission for the test period covered by the temporary rate increase were in agreement except for opposing views as to the allocation of certain costs assigned in part to intrastate operations in Washington. These were the amortization of plant acquisition adjustments and certain administrative and general costs. They were accounted for at the total system level only, but apply to the components of the company's total operations. The company serves both Washington and Idaho, thus requiring allocations on some equitable basis.

The ratio used by the commission's staff for the purpose of allocating costs and investment to states was based solely on energy requirements at substations. The company claimed that this ratio gave undue weight to the usage of energy, to the entire exclusion of individual state requirements for peak demands. It claimed that in considering the cost of electric service, it is important to consider not only

the energy but also the demand component associated with the power requirement and the resulting load factor.

Large Residential Consumption

The company has a larger number of residential customers in Washington with a comparatively high demand, but low load factor, in contrast to Idaho where there is a relatively higher industrial load. The latter load with constant energy requirements and high load factor has a comparatively low demand requirement at the time of the maximum peak demand. Therefore, the commission concluded that an equitable ratio to be used for the intrastate separation of total system power production and transmission facilities should incorporate some weight for demand requirements.

Considering the intrastate separation ratio applicable to the revenues and expenses associated with the company's major power system, and giving weight to both demand and energy requirements, the return of intrastate electric would be at or below 5.85 per cent. Existing rates were found to yield a return of 5.92 per cent when only energy requirements were considered. *Washington Pub. Service Commission v. Washington Water Power Co. Cause No. U-8398, January 29, 1954.*



Electric Company Denied Certificate to Invade Territory of Municipal Plant

THE Delaware commission denied an electric company's request for authority to serve an Air Force base presently being served by a municipal utility. The company contended that the customer preferred its service and that the rate at which

it could render service was substantially lower.

Meaning of Public Convenience

At the outset, the commission pointed out that the company's application, in ef-

PROGRESS OF REGULATION

fect, requested that the commission exercise its power to permit the company to operate as a regulated monopoly in an area not heretofore served by it. The affirmative of proving that public convenience and necessity require the service extension rests on the applicant. State statutes, the commission continued, do not define "public convenience and necessity" but the words have come to have a very well accepted meaning in the public utility field. The rights of, and benefits to, present and future users of the service, the effect on the investors who have supplied the capital for the contending utilities, the effect on existing suppliers, and the rights of the general public must all be considered.

Effects of Competition

The commission summarized the advantages and disadvantages of approving the new service in this way: Advantages—(a) The company will obtain a customer for 3,000 kilowatts of electricity; (b) the rates charged will permit a profit; (c) the customer will be served by the utility of its choice at a lower rate than it was presently paying. Disadvantages—(a) The municipal plant will lose a large customer; (b) this loss will probably require an increase in the cost of power to other customers; (c) the municipal plant will suffer a loss of profits; (d) duplicate facilities

would have to be constructed; (e) the value of the municipality's net investment would be reduced in value by reason of the loss of its prime customer (this point was considered particularly significant because the entire investment consisted of public funds); (f) an undesirable precedent for permitting selective invasion of occupied territory might be established; and (g) a substantial expenditure would have to be made which would not inure to the benefit of other customers in the area. The commission concluded that the prospective benefits from the proposed service were outweighed by the harm which would result. The one customer could not be considered the "public" within the meaning of the term when used in the expression public convenience and necessity.

Finally, the commission noted that the municipal plant would continue to buy from the company the power sold to the base. The municipal plant was willing to serve the base at cost plus a nominal profit. If the company could sell directly to the base at a price considerably lower, the commission continued, "this would seem to be a serious indictment of the fairness of the resale power rate" established by the Federal Power Commission. *Re Delaware Power & Light Co. Docket No. 94, Order No. 182, December 30, 1953.*



Electric Company Permitted to Extend Service Despite Co-operative's Protest

A TELEVISION station asked for extension of service by an electric company. The proposal was contested by a local co-operative, which claimed it should be allowed to furnish the service. The co-operative proposed tapping the transmission line of another co-operative.

Tapping another line to serve a single

relatively small customer, thought the Wisconsin commission, was somewhat of an unorthodox procedure and was just an expedient to permit the co-operative to provide reasonably adequate service, which it could not do with its own facilities. Since the station desired service from the company even though the cost would be

PUBLIC UTILITIES FORTNIGHTLY

greater, the commission authorized the company to extend service and commented as follows:

Under the circumstances, even though the television station at the present time can get more dependable service at lower rates and with less investment from the co-operative than from the public utility, WKBH Television, Inc., is entitled to electric public utility service when the station desires such service and when there is no showing of interference with the service or facilities of the two co-operatives in the area. There is no such showing in this case.

The Wisconsin commission also said:

Another reason for desiring service from the company is that the pole line to be built will provide the necessary support for telephone facilities which are essential for proper operation and control of the television station. If the Northern States Power Company does not furnish the electric energy, it will still be necessary to construct a pole line along essentially the same route for telephone facilities.

Re Northern States Power Co. CA-3198, February 4, 1954.



Return in Excess of "Bare Bones" Cost of Capital

THE Massachusetts Department of Public Utilities allowed a telephone company to make effective a modified increase in rates. The new schedule would permit the company to earn a return of 6.313 per cent on its rate base. This would yield the company substantially more than the "bare bones cost of capital."

Plant under construction, property held for future use, and working capital were included in the company's rate base. The department, however, questioned an increase of \$1,500,000 in the company's traffic expense during a period when the

company had increased the extent of its automatic dial operation. The department's conclusion on this point was stated:

We have no evidence which would enable us to conclude that any portion of the present expense results from such managerial inefficiency as would justify us in disallowing it, and it may be that the effect of the dial conversion upon traffic expense is not reflected as promptly as might be expected.

Re New England Teleph. & Teleg. Co. DPU 10349, 10564, January 6, 1954.



Other Important Rulings

Dial Telephone Discrimination. The Indiana commission, in denying a telephone rate increase, held that it is unreasonably and unlawfully discriminatory for a telephone company to charge the same rates for manually operated magneto service in one exchange as it charges for modern automatic dial service in a neighboring exchange. *Haag et al. v. General Teleph. Co. of Ohio, No. 24273, January 7, 1954.*

Chosen Air Carrier. A foreign air carrier which appeared fit, willing, and able to render a particular service assigned its government in an air transport agreement with the government of the United States was awarded a permit upon a showing that it had been designated by its government as the chosen instrument for this service. *Re Linea Aeropostal Venezolana, Docket No. 5963, December 8, 1953.*

PROGRESS OF REGULATION

Reproduction Cost. The Pennsylvania commission excluded cost of financing from a reproduction cost appraisal in determining the rate base of a water company. *Borough of Montrose v. Consumers Water Co. of Montrose, Complaint Docket No. 15640, December 14, 1953.*

Appeal and Review. The rule that a commission's views must be given full effect by the reviewing court when the evidence is evenly balanced, commented the Arkansas Supreme Court, is not applicable to subject matter which does not call for special knowledge or competence as a prerequisite to an understanding of the related issues. *Boyd v. Arkansas Motor Freight Lines, Inc. et al. 262 SW2d 282.*

System Average Figures. A railroad's use of system average figures to show the reasonableness of rates for the transportation of a specific commodity between points in a given territory was rejected by the Washington commission where the transportation characteristics of the commodity and the nature and volume of the traffic in the area were not similar to the traffic conditions, volume, and characteristics of commodities generally on the system. *Washington Pub. Service Commission v. North Pacific Coast Freight Bureau, Cause No. T-8917, December 18, 1953.*

Train Discontinuance. The Missouri commission, in authorizing a railroad to discontinue certain little-used passenger trains notwithstanding the company's generally satisfactory financial picture, observed that total earnings, including freight revenues, are a material but not alone a decisive factor in such matters. *Re Gulf, M. & O. R. Co. Case No. 12,668, November 24, 1953.*

Linking Certificates. A United States district court held that the right of a carrier to link supporting grants of authority is subject to the condition that the character of the authorized service under each authority, either regular or irregular route, must be strictly observed. *Arrowhead Freight Lines, Ltd. v. United States et al. 115 F Supp 537.*

Competition. The fact that a water carrier's proposed service will provide competition with existing carriers, held a United States district court, is not alone sufficient reason to vacate a commission order granting the carrier a certificate. *Coyle Lines Inc. et al. v. United States et al. 115 F Supp 272.*

Mail Pay. The Civil Aeronautics Board denied an air carrier's application for mail pay for nonmail routes which the carrier had operated in advance of the effective date of its certificate. *Re Northern Consol. Airlines, Inc. Docket No. 3303, December 24, 1953.*

Airline Interchange. A proposed interchange agreement between certain airlines which offered only slight benefits to the public in improved service was disapproved by the Civil Aeronautics Board where the revenues of other airlines would have been adversely affected. *Re Eastern Air Lines, Inc. Docket No. 1102 et al. Order E-7988, December 22, 1953.*

Deferred Taxes. The Missouri commission, in considering the effect of accelerated amortization on utility rates, observed that the tax reductions are neither savings nor income but are simply a deferment of income taxes from the amortization period to the postamortization period and should not be passed on to the consumers, directly or indirectly, either

PUBLIC UTILITIES FORTNIGHTLY

during the amortization period or thereafter. *Re Kansas City Power & Light Co. Case No. 12735, December 22, 1953.*

Railroad Crews. A railroad's practice of occasionally moving a freight train onto a main track from a siding without the second brakeman aboard, held the Ohio Supreme Court, is not a violation of the full crew statute, since the rear brakeman's duties require him, in the interest of safety, to remain behind to protect his train and a following train against collision or derailment from defective tracks. *New York Central R. Co. v. Public Utilities Commission, 115 NE2d 842.*

Certificate Revision. The commission may properly revise the permit of a motor

carrier authorized to haul general freight so as to allow only the transportation of heavy machinery and building supplies, held the Washington Supreme Court, where the carrier failed either to haul general freight or put itself in a position to do so. *Willamette Hauling Co. Inc. v. Kuykendall et al. 263 P2d 827.*

Constitutionality Bypassed. A United States district court would not pass on the constitutionality of a statute requiring interstate carriers operating in the state to obtain certificates, where adequate relief could be accorded a complaining carrier by treating the statute as not applicable to it and enjoining the state commission accordingly. *Dohrn Transfer Co. v. Hoegh, 116 F Supp 177.*

Titles and Index

Preprints in This Issue of Cases to Appear in
PUBLIC UTILITIES REPORTS

TITLES

Albemarle Teleph. Co., Re	(NC)	30
Berkshire Street R. Co., North Adams, City of, v.	(Mass)	27
Florida Pub. Utilities Co., Re	(Fla)	24
Southwestern Bell Teleph. Co., Re	(Ark)	1

INDEX

Apportionment — telephone separations, 1.	Return—attraction of capital, 30; attrition of earnings, 1; cost of capital, 1; debt ratio factor, 1; dividend requirements, 1; gas company, 24; telephone company, 1, 30.
Expenses—charitable contributions, 1; club dues, 1; income taxes, 1; license contract payments to parent telephone company, 1; pension costs, 1; wage increase subsequent to conclusion of proceeding, 1.	Service—curtailment of transit service, 27; operation at a loss, 27.
Rates—gas rates affected by competitive fuels, 24.	Valuation—date of computation of rate base, 1; net investment rate base, 1; working capital allowance, 1.

Public Utilities Reports (3d Series) are published in five bound volumes a year, with the P.U.R. Annual (Index). These reports contain the decisions of the state and federal regulatory commissions, as well as court decisions on appeal. The volumes are \$7.50 each; the Annual (Index) \$6.00. *Public Utilities Reports* also will subsequently contain in full or abstract form cases referred to in the foregoing pages of "Progress of Regulation."

PUBLIC UTILITIES REPORTS

ARKANSAS PUBLIC SERVICE COMMISSION

Re Southwestern Bell Telephone Company

Docket Nos. U-772, U-773
October 5, 1953

APPPLICATION by telephone company for authority to increase rates; modified rate increase authorized.

Valuation, § 36 — Net investment rate base.

1. The most appropriate measure of value in a rate proceeding was found to be the company's net investment in property used and useful in intrastate operations, where money invested in such property appeared to be prudently expended, p. 6.

Valuation, § 299.1 — Working capital allowance — Tax accruals.

2. No allowance for working capital will be made in the rate base of a telephone company which has on hand sufficient tax accruals to offset its cash requirements, p. 7.

Valuation, § 300 — Materials and supplies allowance — Tax accruals.

3. Accruals for federal income tax which a telephone utility has on hand will not be considered as an offset against the company's allowance for materials and supplies, even though such practice is often followed with regard to working capital, since sound financial practice requires that materials and supplies be financed by permanent capital supplied by utility investors, p. 7.

Valuation, § 25 — Rate base — Date of computation.

4. The rate base of a telephone utility should reflect the latest substantiated expenditures for property, including plant under construction and investment in materials and supplies, particularly in a period of inflation when the company has experienced an attrition of earnings, p. 8.

Return, § 35 — Attrition of earnings — Projection into future.

5. The attrition of earnings which a telephone company suffers in a period of inflation will not be projected into the future in a rate proceeding, since

ARKANSAS PUBLIC SERVICE COMMISSION

the rate-making process must be conducted in an orderly fashion and the errors inherent in speculative estimates are likely to far outweigh the equities which might be accomplished, p. 8.

Return, § 26 — Cost of capital.

6. The basic test of the adequacy of the return for a utility is the cost of servicing and attracting capital, p. 9.

Return, § 26 — Cost of capital — Debt ratio.

7. The commission will not give consideration to an assumed reduction in the debt ratio of a telephone company as advocated by the utility or an assumed increase in the debt ratio recommended by consumers, since any hypothetical downward adjustment in a debt ratio merely yields additional earnings for equity capital, while the use of a higher than actual debt ratio results in a theoretical rate structure which can only be sufficient to pay cost of capital if capitalization is changed to conform with the assumed higher ratio, p. 9.

Return, § 26 — Cost of capital — Debt ratio.

8. The use of a hypothetical debt ratio, with a correspondent adjustment of the costs of debt and equity capital, is pure speculation as to what the investors would require if there were a change in the quality of the investment, p. 9.

Return, § 27 — Dividend requirements.

9. Return should not be based on the dividend policy established by the management of a public utility, p. 12.

Expenses, § 87 — License contract payments — Telephones.

10. Payments made by an operating telephone company to its parent of a percentage of its gross revenue, in exchange for various services rendered to the operating company by the parent, will be allowed as operating expenses, although this source of income to the parent company will be recognized as a factor affecting the earnings to be allowed, p. 14.

Return, § 111 — Telephone.

11. A telephone company's return of 6 per cent on its rate base was considered fair, just, and reasonable, p. 15.

Expenses, § 9 — Year-end expense total.

12. The year-end level of expenses and taxes of a telephone company is the most appropriate basis for a determination of rates, p. 15.

Expenses, § 46 — Charitable contributions.

13. Contributions to deserving charitable organizations may be charged as operating expenses, even though such items subject the ratepayer to an involuntary assessment for contributions solely within the discretion of the management, where the amount is reasonable in relation to the size of and scope of a utility's operations and where the civic and social benefits of these contributions are apparent, p. 16.

Expenses, § 48 — Club dues.

14. Club dues will be excluded from the operating expenses of a telephone company, p. 16.

Expenses, § 89 — Cost of making reparation.

15. Reparation costs are of a nonrecurring character and should not be considered as part of the expense account of a telephone company, since, if

RE SOUTHWESTERN BELL TELEPH. CO.

such allowance were made, management would be free from the responsibility of determining reasonable rates in the first instance and might be encouraged to establish excessive ones, p. 16.

Expenses, § 49 — Pension costs.

16. Pension costs actually incurred by a telephone company were allowed as part of its operating expense account, p. 16.

Expenses, § 99 — Wage increase subsequent to conclusion of proceeding.

17. Wage increases made effective nine months subsequent to the test period considered in a telephone rate proceeding, and subsequent to the conclusion of the rate hearing, will not be considered as affecting a telephone company's expense allowance, since the commission is not required to consider a single and isolated change in the cost of service brought to its attention after the close of proceedings, p. 17.

Expenses, § 114 — Income tax — Intercompany relations.

18. A telephone company which is a member of a nation-wide system should not be allowed to charge to its operating expense account income tax in excess of its fair and proportionate share of the consolidated taxes of the system, after consideration of the equitable allocation of the system's interest costs, p. 17.

Expenses, § 114 — Federal income tax — Intercompany relations.

19. An adjustment should be made in the federal income tax expense of an operating telephone company which is a member of a nation-wide telephone system, in order to reflect a reduction for the net tax effect of the operating company's proportionate share of the entire system's interest costs, and this adjustment should be in accordance with the principles set forth in the report entitled "Allocation of Bell System Federal Income Taxes," p. 17.

Expenses, § 114 — Federal income tax — Possible reduction.

20. The possibility of a reduction in the corporate federal income tax rate in a future year will not be considered as affecting a telephone company's expense allowance, since this would require speculation not only upon the actions of Congress, but also on the amount of the possible reduction and other operating conditions which might affect the company's tax liability in future years, p. 17.

Apportionment, § 7 — Telephone separations — Separations Manual.

21. The Charleston Plan method of separations was adopted for the purpose of fixing intrastate telephone rates, notwithstanding contentions that inequitable separations result from the application of the use principle on which the manual is based to station equipment because of the singular characteristics of that type of plant, p. 18.

Depreciation, § 14 — Allowance in excess of original cost amortization.

22. A telephone company will not be permitted to charge depreciation expense in excess of that required to amortize the original cost of its plant, notwithstanding the fact that in a period of inflation depreciation or expense computed on original cost may not maintain the capital committed to the utility service, since under the federal income tax law no additional depreciation allowance would be tolerated, and since, in the absence of a revision of this law, any allowance for additional depreciation would require an increase in revenues of more than twice the amount of required expense to provide for additional taxes, p. 21.

ARKANSAS PUBLIC SERVICE COMMISSION

Return, § 24 — Maintenance of financial integrity.

Statement that if a rate of return applied to a valuation of utility property is sufficient to assure confidence in the financial integrity of the business and adequate to maintain its credit, such rate of return is fair and the value placed on the property is fair value, p. 6.

Apportionment, § 7 — Telephone plant revenues and expenses — Separations method.

Statement that an acceptable separations method for telephone plant revenues and expenses must embody existing legal principles and provide a firm and definite standard to delineate the respective fields of state and federal authority, p. 18.

Apportionment, § 7 — Telephone separations — Station equipment.

Discussion of the use of the Charleston modification of the Separations Manual for the separation of station equipment and operating expenses relating to such equipment, p. 19.

APPEARANCES: For Southwestern Bell Telephone Company: Blake Downie, Attorney, and Edward L. Wright, Attorney.

For the Protesters: Mitchell Moore, for the city of Osceola; Lem C. Bryan, for the city of Fort Smith; Marshall Little, for the city of Benton; Reed Thompson, for the city of North Little Rock; Jabe Hoggard, for the city of El Dorado; Elbert Johnson, for the city of Blytheville; Joseph Brooks, Assistant City Attorney for Little Rock; O. D. Longstreth, Jr., City Attorney for Little Rock.

For the Public Service Commission: U. A. Gentry, Attorney, and M. E. Michell, Director of Utilities.

By the COMMISSION:

History of the Proceedings

These proceedings involve two applications for increases in the Arkansas intrastate rates of Southwestern Bell Telephone Company ("Southwestern"). The first application, providing for a specific schedule of increased exchange rates, was filed August 21, 1952, and such increased rates were

put into effect under bond on September 21, 1952, pursuant to the Arkansas Statutes, § 73-217(b). These rates were estimated by Southwestern to provide additional revenues of \$2,350,000 annually, on the basis of telephones in service on June 30, 1952. The second application was filed simultaneously and stated that Southwestern's proposed schedule of increased rates would not produce a rate of return which would be fair in the future, and requested the commission to "find and fix just, reasonable, and sufficient rates in the interest of both the company and the public." Both applications were consolidated for hearing before the commission, and after numerous prehearing conferences, formal hearings began on April 13, 1953, and were concluded August 6, 1953. The completed record consists of 1,858 pages of testimony and 143 exhibits introduced by witnesses for Southwestern, the commission staff, and the protesters. During these extended proceedings every opportunity was given to Southwestern and the protesters for presentation of evidence and cross-examination.

RE SOUTHWESTERN BELL TELEPH. CO.

Southwestern is an associated company of the American Telephone and Telegraph Company ("American Company") and renders local and long-distance telephone service in Arkansas, Kansas, Missouri, Oklahoma, Texas, and a small part of Illinois contiguous to the St. Louis area. Southwestern had approximately 215,000 telephones in service in Arkansas at December 31, 1952. All but a few shares of Southwestern's common stock is owned by its parent, the American Company, which also operates a long lines department providing long-distance telephone service throughout the United States. In addition, the American Company owns substantially all of the common stock of Western Electric Company ("Western Electric") which is the principal equipment supplier for the Bell System. The American Company renders various technical services to the operating companies and together with Western Electric owns and operates the Bell Telephone Laboratories which engage in research and development of new techniques of operation and new telephone equipment.

Southwestern claimed that the average rate of return realized on its investment in Arkansas intrastate property since the end of World War II was 2.2 per cent although two rate increases, totaling approximately \$5,000,000, were granted during that period.¹

In this proceeding counsel for Southwestern indicated that increased revenues of \$3,850,000 would be necessary to provide a fair return. This

claim apparently was based on counsel's interpretation of evidence presented by Southwestern's witnesses purporting to show that an 8 per cent rate of return on a net investment rate base of \$42,628,419, and an allowance for additional cost of replacements are necessary to preserve the financial integrity of Southwestern's Arkansas intrastate operations. Taken at face value the evidence presented by Southwestern's witnesses indicates a need for \$5,331,028, in additional revenues, which, of course, is some \$1,500,000 *more* than the claim of counsel. It is not clear what evidence counsel found necessary to consider in arriving at their claim.

The firm of Arthur Andersen & Co., independent public accountants having wide utility experience, at the request of the commission, made a detailed examination of Southwestern's applications for increased rates and the evidence submitted in support thereof. Based upon their investigation, involving some 3,500 man-hours of study and a complete presentation of testimony and exhibits, Arthur Andersen & Co. recommended an increase in revenues of approximately \$2,600,000, to yield a rate of return of 6.3 per cent on a net investment rate base of \$40,937,117, plus revenues of \$400,000 for additional cost of replacements or depreciation expense.

In addition to the man-hours spent by Arthur Andersen & Co., the staff of the commission, being limited as to personnel, devoted some 3,000 man-hours to the analysis of the testimony and exhibits and an investigation of the books and records of Southwestern.

Counsel for the protesters representing various municipalities in the state

¹ Docket No. U-231; and Docket No. U-462 (1951, 1952) 87 PUR NS 97, 95 PUR NS 1.

ARKANSAS PUBLIC SERVICE COMMISSION

("Cities") took an active and useful part in the conduct of the case and retained two consultants who made independent investigations. The Cities presented evidence indicating a need for an increase in revenues of approximately \$1,400,000, based on a $5\frac{1}{2}$ per cent rate of return and a rate base of \$37,661,626. Using a modified separations method, the witnesses testifying in behalf of the Cities found a rate base of \$36,357,545 and a need for an increase in revenues of approximately \$762,000. The Cities departed from the recommendations of their witnesses, and in their brief filed with this commission urged that no increase in revenues be granted because of alleged inequities of the Separations Manual.

Rate Base

The issue of valuation of property for rate-making purposes has a long record of controversy since the historic decision of the United States Supreme Court in *Smyth v. Ames*.² Various and often inconsistent theories of valuation were applied, depending upon the prevailing price levels, until the United States Supreme Court decision in *Federal Power Commission v. Hope Nat. Gas Co.*³ gave recognition to the importance of the *result* to be reached in a rate determination. In a recent case the Arkansas supreme court reviewed the development of the law on

valuation and, following the rule of the *Hope Case*, *supra*, concluded that: ". . . no public utility has a *vested right* to any particular method of valuation."⁴

It is apparent that our ultimate goal in utility regulation, under the Arkansas Statutes and the decisions of courts, is the determination of just and reasonable rates which provide a fair and adequate return to the owner.⁵ If a rate of return applied to a valuation of property results in a return which assures confidence in the financial integrity of the business and is adequate to maintain its credit it is axiomatic that the rate of return is a "fair" rate of return and that the value placed on the property is "fair" value. The mechanics of the computation of the value of the investment and the per cent of return applied to such investment lose significance if the return allowed is adequate considering all the factors involved in a rate determination.⁶

Telephone Plant

[1] After considering all of the evidence in the record as to the nature and extent of additions to property throughout Southwestern's history, we are convinced that the most appropriate measure of value for rate-making purposes is Southwestern's net investment in property used and useful in Arkansas intrastate operation.⁷ A re-

² (1898) 169 US 466, 42 L ed 819, 18 S Ct 418.

³ (1944) 320 US 591, 88 L ed 333, 51 PUR NS 193, 64 S Ct 281.

⁴ *Fort Smith v. Southwestern Bell Teleph. Co.* (1952) 220 Ark 70, 94 PUR NS 214, 247 SW2d 474.

⁵ Arkansas Statutes, § 73-218; *Fort Smith v. Southwestern Bell Teleph. Co.*, *supra*; *Federal Power Commission v. Hope Nat. Gas Co.*, *supra*.

⁶ In this connection the testimony of Southwestern's witness, Mr. R. A. Moran, is significant: ". . . the company would be satisfied if the dollars of earnings are sufficient, regardless of the method in which they may be expressed as one rate of return on one rate base and another rate of return on another rate base."

⁷ Net investment in property used and useful in Arkansas intrastate operations, includes actual moneys expended for telephone plant in service, telephone plant under construction, and telephone plant held for future use, less

RE SOUTHWESTERN BELL TELEPH. CO.

turn allowed on this investment, if sufficient to cover the cost of servicing and attracting capital, will adequately compensate the investors and encourage new investment in the utility service.

During the period since the war, Southwestern has responded to unprecedented public demand for telephone service and has been required to expend large sums of money for expansion and improvement of telephone property in Arkansas.⁸ Southwestern's officials testified that current demand for new telephone service is continuing, and that plans for additional construction contemplate an expenditure of \$9,700,000 during 1953.

It has always been the policy of this commission to encourage prudent expenditures for property required in the public service, and to allow a fair return on capital invested for this purpose.⁹ The evidence shows and we are satisfied that moneys invested by Southwestern in plant currently in service, plant under construction, and plant held for future use in telephone operations, were prudently expended and that such plant is used or useful in rendering telephone service.

Following the established policy of this commission, as approved by the Arkansas supreme court, we conclude that Southwestern's actual net investment in the Arkansas intrastate plant, amounting to \$41,684,010, should be included in the rate base.

Cash Working Capital

[2] Working capital requirements

reserves for depreciation, all as recorded on the books and records of Southwestern.

⁸ The evidence indicates that the Arkansas intrastate net investment increased from \$14,000,000 at the end of 1946 to \$43,000,000 at the end of 1952.

supplied from Southwestern's own funds is a capital investment, and is entitled to compensation in the same way as investment in telephone plant. However, there is evidence that Southwestern has available for general corporate purposes substantial funds from tax accruals. These funds are collected from the telephone subscriber and held by Southwestern for future payment to the government. Data supplied by witnesses for the commission staff indicates that at the low point during the year these accruals are sufficient to provide the cash working capital requirements, and, therefore, we make no allowance in the rate base for cash working capital.¹⁰

Materials and Supplies

[3] The Cities have also urged that we make no allowance in the rate base for Southwestern's investment in materials and supplies on the theory that tax accruals provide funds for this item of working capital as well as for cash operating expenses. This claim fails, however, to recognize the permanent nature of this investment. Materials and supplies are not readily converted into cash, but like items of plant require continual replacement. Sound financial practice requires that materials and supplies be financed by permanent capital supplied by the investors in the utility. We do not believe that we should encourage or prevail upon a utility to finance materials and supplies with funds provided by tax accruals.¹¹ This commission has not heretofore approved such a prece-

⁹ Re Southwestern Bell Teleph. Co. (1951) 87 PUR NS 97; Re Arkansas Power & Light Co. (1944) 55 PUR NS 129.

¹⁰ Re Southwestern Associated Teleph. Co. (1952) Docket No. U-714.

¹¹ Re Southern Bell Teleph. & Telegr. Co.

ARKANSAS PUBLIC SERVICE COMMISSION

dent, and there is nothing in the record in this case to justify establishing a new rule with respect to the allowance of materials and supplies as a component of the rate base.¹²

Southwestern has claimed \$564,409 for materials and supplies, which is the book amount of that investment at December 31, 1952. Based upon an examination of the monthly inventory balances maintained by Southwestern and, in the absence of any showing that this amount is not reasonable, we accept management's judgment that this inventory is required in the efficient conduct of Arkansas intrastate operations.

Conclusion

We conclude after consideration of all of the evidence in this case that the rate base applicable to Arkansas intrastate operations at December 31, 1952, was \$42,248,419, consisting of net investment in property used and useful in Arkansas intrastate operations, plus the book amount of materials and supplies at that date as shown in Appendix I.

Attrition

[4, 5] Southwestern's witnesses presented compelling evidence showing an attrition of earnings experienced during the period of expansion since the war. The causes of this attrition are not, however, traceable solely to the high cost of property additions

and improvements as Southwestern claimed. There is evidence that substantial items of cost such as engineering and development related to conversions and other permanent improvements, and pension accruals were higher during this period of abnormal growth than may be expected in a period of relatively stable operations.¹³

We do recognize, however, that the high cost of additions to plant tends to reduce the over-all rate of earnings because of the dilution of return realized on the older low cost plant. *It is primarily for this reason that we adopt a rate base which reflects the latest substantiated expenditures for telephone property, including telephone plant under construction and the investment in materials and supplies, to determine an allowable return.* While Southwestern claimed that we should go further and project a rate of attrition, we do not believe that it is our function to speculate on future operating conditions. The rate-making process must be conducted in an orderly fashion, and final determinations must be based on a thorough examination of the results of operation during a past period. The inevitable delay required to process an application for a revision in rates may cause some inequities resulting from operating changes occurring in the interim. In some cases the delay may benefit the utility company, in others, the consumer. We do not believe that we

(NC 1953) Docket No. P-55 Sub. 30; Re Chesapeake & P. Teleph. Co. (Va 1950) 85 PUR NS 435.

¹² Re Southwestern Bell Teleph. Co., *supra*, note 9; Re Southwestern States Teleph. Co. (1952) 94 PUR NS 97; Re Southwestern Associated Teleph. Co., *supra*.

¹³ A witness for the commission staff presented additional evidence which indicated that Southwestern failed to capitalize certain engineering and administrative costs related to construction, and which were paid to the American Company on a license fee arrangement. During a period of heavy construction the failure to capitalize these items results in an understatement of operating income, and therefore exaggerates the rate of attrition. We have considered license fees in connection with our determination of a fair rate of return.

RE SOUTHWESTERN BELL TELEPH. CO.

can eliminate these inequities by guessing about future changes which may affect Southwestern's operations. The errors inherent in speculative estimates are likely to far outweigh the equities which may be accomplished.

We, therefore, conclude from the evidence presented in this case that an end of period rate base, namely, that existing at December 31, 1952, which includes all moneys actually expended for plant used or useful in rendering telephone service, is reasonable and just for the present and for a reasonable time in the future, and conforms to the requirements prescribed by the courts.¹⁴

Rate of Return

[6-8] We now turn to a consideration of the return which should be allowed in the cost of service to compensate the capital invested in the Arkansas intrastate telephone properties of the Bell System. The principles governing the determination of an adequate return have been discussed by the United States Supreme Court¹⁵ and have been considered at length in previous decisions of this commission.¹⁶ Following these established principles, we believe that the basic test of an adequate return for a public utility is the cost of servicing and attracting capital to the industry. This

"cost of capital" approach has the advantage of differentiating the characteristic risks of various types of enterprises, and, therefore, can be used to determine the investors' requirements for the telephone industry as distinguished from the less stable operations of, for example, manufacturing concerns. Moreover, a determination of the cost of capital employed in the Bell System, when based on recent market response to new financings, gives a reliable indication of the terms on which the utility will be able to attract new capital for future expansion and improvement.

Cost of Debt Capital

The Bell System is closely knit and fully integrated in its financial arrangements, and while Southwestern and other units of the system have individual debt obligations outstanding, the evidence shows that the credit standing of the whole system influences the interest rates required by the investors of any particular issue. Moreover, there is additional evidence which indicates that the American Company exercises control over the finances of the associated companies in the system, and may with facility grant advances or withhold from any of the associated companies to supply capital needs in that system.¹⁷ Because of this financial arrangement, it is im-

¹⁴ *McCardle v. Indianapolis Water Co.* (1926) 272 US 400, 71 L ed 316, PUR1927A 15, 47 S Ct 144; *Fort Smith v. Southwestern Bell Teleph. Co.*, *supra*, note 4; *Re Southwestern Bell Teleph. Co.* (Okla 1953) Docket No. 20, 380; *Re Southwestern Bell Teleph. Co.* (Kan 1952) 93 PUR NS 161; *Re Southwestern Bell Teleph. Co.* (Mo 1952) 92 PUR NS 481.

¹⁵ *Federal Power Commission v. Hope Nat. Gas Co.* (1944) 320 US 591, 88 L ed 333, 51 PUR NS 193, 64 S Ct 281; *Missouri ex rel. Southwestern Bell Teleph. Co. v. Public Service Commission*, 262 US 276, 67 L ed 981,

PUR1923C 193, 43 S Ct 544, 31 ALR 807; *Bluefield Water Works & Improv. Co. v. West Virginia Pub. Service Commission*, 262 US 679, 67 L ed 1176, PUR1923D 11, 43 S Ct 675.

¹⁶ *Re Southwestern Bell Teleph. Co.*, *supra*, note 14; *Re Arkansas Power & Light Co.*, *supra*, note 9.

¹⁷ *Re New York Teleph. Co.* (NY 1951) 91 PUR NS 231, 239, the commission described the intercorporate financial relationships in these words: "The financial picture of the system may be likened to a main reservoir with subsidiary reservoirs, and the storage level of

ARKANSAS PUBLIC SERVICE COMMISSION

practicable to identify the particular debt issues which support Southwestern's investment in Arkansas telephone properties. It is necessary, therefore, to look to the experience of the Bell System as a whole to determine the cost of this source of capital for Arkansas intrastate operations.

The annual average cost of Bell System debt issues outstanding at December 31, 1952, is slightly less than 3 per cent.¹⁸ This cost was computed by the commission staff as the average interest rate adjusted for amortization of premium and expense, and therefore reflects the cost of servicing debt securities held by the public. The cost of debenture bonds issued by Southwestern and included in this computation is slightly under 3 per cent.¹⁹ Bell System debt capital has been raised on long-term issues at fixed interest rates, and therefore the system will enjoy the use of this money at the average contractual interest rate of 3 per cent for many years in the future.²⁰

Witnesses for Southwestern and the commission staff testified to the recent general increases in interest rates, and there is evidence that the 1953 Bell System debt issues carry interest costs of 3.75 per cent and 3.80 per cent.²¹ Southwestern's witness, Mr. Eugene S. Merrill, insisted that an allowance of at least $3\frac{1}{2}$ per cent for the cost of

all outstanding debt money was necessary in view of the currently high interest rates. The reasoning in support of this claim has completely eluded us and we cannot understand why Southwestern should have an allowance for interest cost substantially in excess of what it will actually have to pay; this excess, if allowed, merely increases the return on the equity capital of the American Company.

It is, of course, necessary in fixing rates for the future to give recognition to an increase in interest rates. Witness for the commission staff, Mr. S. Lloyd Nemeyer, made a computation which gives effect to the current increase in interest rates by weighting the actual cost of outstanding debt issues (2.98 per cent) with the higher interest cost of new issues (3.75 per cent), based on estimated new financing requirements for the year 1953. The result of this computation was 3.054 per cent. We accept Mr. Nemeyer's approach because it gives specific recognition to current interest costs for a reasonable time in the future while retaining as the basic element in the cost of debt capital the actual interest expense on debt issues presently outstanding. We conclude that 3.054 per cent is an appropriate allowance for debt capital.

any one may be raised and lowered at will to best meet the needs as determined by the overall management of the system as a whole."

¹⁸ The total funded debt of the Bell System at December 31, 1952, was \$3,789,861,500 and annual interest cost thereon was \$112,946,048, resulting in an average interest rate of 2.98 per cent.

¹⁹ Southwestern's debenture bonds outstanding at December 31, 1952, consisted of two issues totaling \$175,000,000 and annual interest cost thereon was \$5,116,614, resulting in an average interest rate of 2.92 per cent.

²⁰ Less than 10 per cent of the total funded

debt of the Bell System outstanding at December 31, 1952, excluding convertible debentures, matures before 1970, and more than 50 per cent of this debt is not due for payment until 1980 and thereafter.

²¹ On May 5, 1953, Southern Bell Telephone & Telegraph Company offered \$30,000,000 debenture bonds on competitive bidding. The effective interest cost on the most favorable bid was 3.791 per cent; however, the company rejected all bids. On June 23, 1953, New York Telephone Company sold \$35,000,000 refunding mortgage bonds at an annual effective cost of 3.77 per cent.

RE SOUTHWESTERN BELL TELEPH. CO.

Allowance for Equity Capital

The equity capital invested in Arkansas telephone properties is represented almost entirely by the common stock and surplus of the parent American Company. Regular dividends of \$9 per share have been paid on this stock since 1922, and it is widely traded on all major stock exchanges. A number of approaches to the problem of determining a proper allowance for equity capital have been recommended by expert witnesses for Southwestern, the commission staff, and the Cities during the proceeding. Basically, the evidence presented by these witnesses falls into two categories: (1) an allowance reflecting the cost of new equity capital, based on earnings-price ratios adjusted for cost of flotation, and (2) an allowance based on the maintenance of the traditional \$9 dividend of the American Company.

Large amounts of new equity capital were raised by the American Company in every year since the war.²² The actual method of sale was accomplished for the most part through convertible debenture plans, and the facts indicate that investors were willing to maintain market prices for American Company common stock in excess of its book value for the entire period during which conversions occurred. Moreover, the data presented by the commission staff show that the net proceeds realized by the American Company since 1946 from the conversion of debentures to new common stock com-

pared favorably with the equity ownership of the old stockholders. In view of these facts it appears reasonable to us that the investors' evaluation of earnings realized by the Bell System, especially in recent years, provides an appropriate basis for future return requirements.

Comprehensive studies were made by the commission staff and Southwestern covering earnings-price ratios, cost of flotation, and return on equity capital of the American Company. Additional studies on the cost of equity capital for electric operating utilities and associated companies of the Bell System with large minority interests indicate a range of 8 per cent to over 10 per cent for these companies depending upon size, location, growth, and other operating factors. These studies provide some measure of the cost of equity capital for the Bell System. However, the evidence is very clear that the size of the Bell System and reputation for dividend continuity of the American Company have placed its common stock on a higher level of quality, and, therefore, a lower cost of capital to the system.

We conclude from this evidence that the investor in American Company common stock requires a return of approximately 8 per cent to 8½ per cent based on market prices adjusted for cost of flotation.²³

Capitalization Ratios

On December 31, 1952, the Bell System capitalization ratios were 40

²² Proceeds received from new common stock issues during the period 1946-1952 were \$2,567,508,544. Of this amount \$1,864,540,333 was raised during 1950-1952.

²³ Earnings-price ratios, adjusted for cost of flotation, on American Company common stock as computed by the commission staff were:

1948	7.36%
1949	7.62
1950	9.38
1951	8.57
1952	8.39
Average 1920-1952	8.07

ARKANSAS PUBLIC SERVICE COMMISSION

per cent debt and 60 per cent equity. Witnesses for Southwestern urge us to *assume* a reduction in the percentage of debt to $33\frac{1}{3}$ per cent, and allow a rate of return sufficient to cover a higher cost of nonexistent equity capital. On the other hand, the Cities contend that a reasonable debt ratio is 45 per cent, and a rate of return should be based on this assumption, notwithstanding the fact that the rate of return so computed would not cover the *actual* cost of capital.²⁴ We cannot accept either of these claims. Any hypothetical downward adjustment in the debt ratio for determining a rate of return merely yields additional earnings for equity capital. Likewise, the use of a higher than actual debt ratio results in a theoretical rate of return which can only be sufficient to pay costs of capital if the Bell System changes its capitalization to conform to the wishes of the Cities. Moreover, the debt ratio is an important element in investment appraisal, and the current costs of the capital components necessarily reflect the existing debt ratio of the Bell System. We would be indulging in pure speculation if we were to select a hypothetical debt ratio and adjust the actual costs of debt and equity capital to what we may think the investors would require in the circumstances of an assumed change in the quality of the investment.

There is convincing evidence in the record that the existing Bell System debt ratio of 40 per cent is reasonable,

and provides adequate protection for the stockholders' equity. While the telephone operations are less stable than other utility services, and therefore cannot safely carry as high a percentage of debt in the capital structure, it is also true that changes in interest rates and income tax laws occurring over the last three decades have eased the burden of the higher debt ratios.

Studies made by the commission staff indicate that, in terms of interest coverage and absorption ratios, the 40 per cent debt ratio of the Bell System under today's conditions is no more burdensome than the traditional $33\frac{1}{3}$ per cent debt ratio was during the 1920's. In view of this evidence, we conclude that the rate of return should be based on the existing capitalization of the Bell System.

Over-all Cost of Capital

Using a capitalization of 40 per cent debt and 60 per cent equity and an allowance of 3.054 per cent for interest on debt and 8 per cent to $8\frac{1}{2}$ per cent for earnings on equity capital, the over-all cost of capital of the Bell System ranges from approximately 6 per cent to $6\frac{1}{4}$ per cent.

Requirements to Service Bell System Capital

[9] The Cities' witnesses approached this problem solely from the viewpoint of servicing capital charges of the Bell System incurred during the year 1952, including the \$9 dividend of the American Company.

²⁴ This contention apparently was based on several rate cases involving Bell System operations in other jurisdictions. The Cities' witnesses did not recommend a higher debt ratio, and we can find no evidence in this case to justify such a claim. In this connection, we note that the Cities and Southwestern cited numerous cases involving rates of return allowed in

other jurisdictions. We are not impressed with cases allowing higher rates of return selected by Southwestern, nor the low rates selected by the counsel for the Cities. No proof of comparability was offered to provide a basis for considering evidence of this kind in the present proceeding.

RE SOUTHWESTERN BELL TELEPH. CO.

Southwestern and the commission staff also presented evidence of return requirements of the Bell System based on capital obligations outstanding at the end of 1952. We do not believe that regulatory agencies should, as a general rule, determine allowable return on the basis of a dividend policy established by the management of a utility company. Dividend policy is a function of management, and in its best form results from a careful weighing of financial and operating factors which are subject to constantly changing economic conditions. It is not the function or purpose of regulation to appraise the dividend policy of a utility company,²⁵ nor is regulation conducted in the best interests of the consumers by fixing rates to guarantee a dividend rate which is solely within the control of the utility company.

However, in view of the long-established and almost legendary character of the \$9 dividend of the American Company, and also in recognition of the fact that the continuity of this dividend importantly affects investors' appraisal of the Bell System securities, we feel that it is appropriate to consider this approach in *testing* the adequacy of a rate of return based on the cost of capital. The difficulty of applying this test is in determining a proper allowance for retained earnings and dividend protection (or conversely, a reasonable dividend pay-out percentage). There was a wide disparity of opinion among the witnesses who testified on this issue.²⁶ While there is little hope in reconciling these

differences of opinion, it appears plainly evident that a weighted average of dividend pay-out of 84 per cent for all years since 1922 adopted by the Cities' witness is too high because it includes all of the poor years when pay-out exceeded 100 per cent of earnings. Likewise, we are not impressed with Southwestern's claim that the 60 per cent pay-out ratio enjoyed during the prosperous 1920's is an appropriate guide to current requirements. It is not our purpose to fix a rate of return to duplicate the most profitable years in the history of the Bell System, especially when it may be recalled that regulation was of questionable effectiveness during that period.

Using a capitalization of 40 per cent debt and 60 per cent equity and an allowance of 3.054 per cent for interest on debt, a dividend pay-out ratio of 75 per cent to 80 per cent and giving consideration to the continuance of the \$9 dividend by the American Company, the over-all return requirements of the Bell System range from approximately 6 per cent to 6½ per cent.

Other Factors Which Must Be Considered

It must be noted that the foregoing cost of capital and return requirements have been developed on the assumption of a single corporate enterprise, engaged solely in telephone operations, and limited in earnings to the rate of return allowed under regulation in the various operating jurisdictional areas. Such is not the case with the Bell System, and therefore, it is neces-

²⁵ Chesapeake & P. Teleph. Co. v. Public Service Commission (1952) — Md —, 97 PUR NS 50, 93 A2d 249; Re Baltimore Transit Co. (Md 1952) 94 PUR NS 129.

²⁶ Southwestern's witness, Mr. Eugene S.

Merrill, recommended a 60 per cent pay-out ratio; Mr. James M. Honaker, for the Cities, used 84 per cent; and Mr. S. Lloyd Nemeyer, for the commission staff, based his computations on a 75 per cent ratio.

ARKANSAS PUBLIC SERVICE COMMISSION

sary to qualify the allowable rate of return for unusual earnings advantages realized by the Bell System and not directly subject to regulatory surveillance. We now turn to a discussion of these other factors which should be considered.

License Contract Fees

[10] The parent American Company renders certain engineering, administrative, and financial services mutually beneficial to the operating companies of the Bell System.²⁷ Unlike other utility holding company organizations, however, the American Company does not recoup the costs of such services directly from the recipient companies on the basis of benefit received. Rather, a fixed license fee of one per cent of gross revenues is exacted from the operating companies; and there is not necessarily a relationship between this fixed fee and the costs allocable to the various areas served. Southwestern's witnesses presented evidence as to the nature and extent of such services on a *system-wide* basis, but we are unable to determine from this information whether the license fee collected from Arkansas subscribers is supported or supportable by costs incurred by the American Company *properly allocable* to Arkansas intrastate operations. Several commissions have recently questioned the propriety of the license fee arrangements;²⁸ many others have ex-

pressed dissatisfaction with the apparent reluctance of the Bell System to comply with accounting requirements generally required of other holding companies.²⁹ While we do not feel that we should reject and disallow the contractual agreement for license fee payments at this time, we believe that the interests of the consumer require that we recognize this source of income to the American Company, and accordingly consider this in determining the allowable rate of return. This action is especially necessary in view of the fact that payments under the license contract have increased automatically and without the benefit of additional services during the period that Southwestern has been collecting increased revenues under bond.

Western Electric

The American Company owns and controls Western Electric which is the sole supplier and equipment manufacturer for the Bell System. In recent years, Western Electric has earned a rate of return on its invested capital of 10 per cent to 12 per cent from sales to Southwestern. Since 1916, the average earnings of Western Electric from such sales have been somewhat less—about 8 per cent. During the proceeding, the Southwestern witnesses testified to the value of the materials and equipment purchased from Western Electric, and there is evidence that economies are realized by the Bell

²⁷ In 1952 the costs incurred by the American Company to render these services to all of the operating companies were:

Operation and engineering	\$7,434,229
Bell Telephone Laboratories	17,254,235
Treasury Department	4,207,018
Public Relations Department	3,660,098
Comptroller's Department	3,146,415
Other	12,467,439
Total	\$48,169,434

²⁸ Re Southern Bell Teleph. & Teleg. Co. (Fla 1952) 92 PUR NS 335; Re Southwestern Bell Teleph. Co., *supra*; Re New Jersey Bell Teleph. Co. (NJ 1951) 91 PUR NS 161.

²⁹ Pacific Teleph. & Teleg. Co. v. Flagg (1950) 189 Or 370, 85 PUR NS 101, 220 P2d 522; Chesapeake & P. Teleg. Co. v. Public Service Commission (Md CC 1952) 95 PUR NS 129; Re Mountain States Teleph. & Teleg. Co. (Utah 1951) 90 PUR NS 107; Re New

RE SOUTHWESTERN BELL TELEPH. CO.

System through the close association of the operating companies and the manufacturing affiliate. There were further claims by Southwestern witnesses that Western Electric's prices were substantially lower than the competitive market could offer, and that no comparable service could have been provided from other suppliers. While we recognize certain advantages of Western Electric's affiliation with the Bell System, we are not impressed with the argument that Western Electric's performance measures up to competitive standards. Obviously no serious competitor exists *because of this affiliation*, and consequently comparative competitive standards of performance are not persuasive.

We cannot remain unmindful of the fact that Western Electric earnings are produced by sales to operating companies, including Southwestern's Arkansas intrastate operations. These earnings are, of course, available through ownership by the American Company, for payment of capital charges of the Bell System. Studies made by witnesses for the staff indicate that the cost of capital for a manufacturing enterprise such as Western Electric ranges from 10 per cent to 12 per cent. The over-all cost of capital to the Bell System of 6 per cent to 6½ per cent includes a portion of the higher cost capital invested in Western Electric, and therefore, the cost of that portion of the Bell System capital invested in telephone operating properties is substantially lower.

Conclusion

[11] Considering all of the evidence, we conclude that a fair, just, and reasonable rate of return is 6 per cent on Southwestern's rate base hereinbefore determined to be applicable to Arkansas intrastate operations.

Operating Expenses and Taxes

[12] Southwestern claimed an allowance for operating expenses based on the actual expenses for the year 1952 adjusted *only* to reflect the 1952 wage increase for a full year.³⁰ While Mr. R. A. Moran, Southwestern's accounting witness, admitted that these expenses included many items of a nonrecurring nature, he failed to submit adjustments for such items. Moreover, the evidence indicates that Southwestern's operations changed substantially during the year with the addition of new telephones and facilities, and, consequently it is necessary to consider the level of revenues and expenses existing at the end of the year 1952 to correspond to the investment in telephone plant at that date. Southwestern presented no evidence of year-end level of revenues and expenses.

The commission staff analyzed Southwestern's Arkansas intrastate operations for the test year 1952, and developed a year-end level of expenses and taxes of \$17,201,349 including state and federal income taxes payable assuming a return of 6 per cent is earned by Southwestern upon the rate base established herein.³¹ The evi-

England Teleph. & Teleg. Co. (Mass 1949) 83 PURNS 238.

³⁰ At a late date in the proceeding, Southwestern attempted to change the test period to end on June 30, 1953. However, we denied this request, and, as noted in the record, the evidence submitted by Southwestern in this

connection was new and would require extensive re-examination by the commission staff and the Cities.

³¹ Witnesses for the commission staff also presented an actual cost of service for the year 1952 and a pro forma cost of service for a "normal year" to measure the results of oper-

ARKANSAS PUBLIC SERVICE COMMISSION

dence supports the reliability and adequacy of the data included in this year-end level statement of expenses, and indicates that it is basically a restatement of actual 1952 expenses, adjusted for nonrecurring costs and the effects of the additional investment in telephone plant made during the year.

Considering all the evidence presented, we conclude that the year-end level of expenses and taxes is the most appropriate basis for a determination of rates in this proceeding.

The year-end level statement contained certain specific items which are in controversy and are discussed as follows:

Contributions

[13, 14] Included in the allowance for operating expenses is \$18,000 for charitable contributions, based on Southwestern's actual expenditures in Arkansas during the year 1952. We are aware that inclusion of such expenses in the cost of service subjects the subscriber to an involuntary assessment for contributions solely within the discretion of Southwestern's management. However, the amount is reasonable in relation to the size of and the scope of Southwestern's operations throughout the state, and we do not question the civic and social benefit of these contributions to deserving charitable organizations. We make no allowance for club dues, and we cannot accept Southwestern's claim that this

expense is necessary to the service of telephone subscribers.

Cost of Rate Refund

[15] Southwestern claimed an allowance for costs incurred in refunding rates collected under bond in Docket U-462 [(1951, 1952) 87 PUR NS 97, 95 PUR NS 1] which were determined to be excessive in subsequent litigation. Regulatory authorities and the courts have repeatedly held that reparation costs are of a non-recurring character and should be borne by the company.³² Allowance for such expenses in the cost of service frees management from the responsibility of determining reasonable rates to be established under bond and invites and might well encourage the establishment of excessive rates.

Southwestern's costs in connection with rate refunds are not included in the year-end level of expenses, and we do not believe that such an allowance should be made.

Pensions

[16] The year-end level statement of expenses makes allowance for pension costs actually incurred by Southwestern. The Cities contended in their brief that current pension accruals are excessive. However, there is no evidence to support such a claim. We are aware that the determination of pension accruals is not an exact mathematical science and we believe that the annual accruals over and above the

ations during a past period. While such statements of expenses and revenues were useful in the investigation of Southwestern's operations in the past, the material changes in the revenues and expenses experienced during the year required the use of the year-end level of expenses in this case.

³² Re Mississippi River Fuel Corp. (FPC 1952) 95 PUR NS 435; Panhandle Eastern Pipe Line Co. v. Federal Power Commission 2 PUR 3d

(CCA8th 1946) 63 PUR NS 270, 154 F2d 909. Although Chief Justice Smith, in dissenting as to the court's findings as to interest on amounts collected under bond, stated that rate refunding costs were appropriate rate-making expenses, such statement cannot be construed to be a pronouncement of the court. Fort Smith v. Southwestern Bell Teleph. Co. (1952) 220 Ark 70, 94 PUR NS 214, 247 SW 2d 474.

RE SOUTHWESTERN BELL TELEPH. CO.

current pension payments indicate a situation that requires continual examination. In this case, however, we find no proof that pension accruals are excessive.

Wage Increase

[17] By way of offer of proof dated September 4, 1953, and after the submission of the case for formal consideration by the commission on August 6, 1953, Southwestern contended that as a result of a wage agreement reached August 31, 1953, between Southwestern and the Communications Workers of America—CIO, an additional allowance in the cost of service amounting to \$359,500 was necessary to recover increased wage costs.

We have made every effort in the proceeding to determine reasonable and just rates for the future as well as the present. We do not believe, however, that we are bound to consider a single and isolated change in the cost of service nine months subsequent to the test period, and which was introduced after the close of the proceedings. The commission staff and the Cities had no opportunity to study and analyze this evidence. The period during which the increase in wages took place was not under review in this proceeding and there is no evidence before us as to changes in other classes of expenses and revenues which might well offset a portion or all of these wage costs.

For these reasons we have made no allowance in this proceeding for wage increases incurred by Southwestern subsequent to the close of the proceedings on August 6, 1953.

Income Taxes

[18, 19] Southwestern is an integral part of the Bell System. It is necessary to consider the entire Bell System in the determination of the rate of return, and, therefore, it is necessary to consider the entire Bell System in the computation of federal income taxes. Only Arkansas' fair and proportionate share of the consolidated taxes of the system, after consideration of the equitable allocation of the system's interest costs, should be recovered from the user of the telephone service. Taxes claimed by Southwestern do not reflect a reduction for the net tax effect of its proportionate share of the Bell System interest costs. Accordingly, we feel that an adjustment should be made to federal income tax expense applicable to Arkansas intrastate operations in accordance with the principles set forth in the report entitled "Allocation of Bell System Federal Income Taxes," prepared by the committee on accounts and statistics of the National Association of Railroad and Utilities Commissioners and submitted to that association's 1952 annual convention at Little Rock, Arkansas. Based upon that report, we conclude that state and federal income taxes in the amount of \$2,538,022 should be allowed assuming a return of 6 per cent is earned on Southwestern's Arkansas intrastate rate base.

[20] The Cities contended that we should give effect at this time to the possibility of a reduction in the corporate federal income tax rate in 1954. This contention is contrary to sound regulatory practice,³⁹ and would re-

³⁹ Re New York Teleph. Co. (NY 1951) 91 PUR NS 231; Re New Jersey Bell Teleph.

Co. (NJ 1951) 91 PUR NS 161; Re South Atlantic Gas Co. (Ga 1951) 90 PUR NS 29;

ARKANSAS PUBLIC SERVICE COMMISSION

quire us to speculate not only upon the actions of Congress, but the amount of this possible reduction, and also to other operating conditions which may affect Southwestern's income tax liability in future years.

Separation of Property and Expenses

[21] A large part of telephone plant provides both intrastate and interstate service. This situation results in a division of jurisdiction between state and federal regulatory authorities over common telephone property and the related revenues and expenses. The search for a reliable, equitable, uniform, and practical method of separation acceptable to the state and federal regulatory bodies began with the Minnesota Rate Cases³⁴ and specifically in the telephone industry in *Smith v. Illinois Bell Teleph. Co.*³⁵ Joint studies by representatives of the Federal Communications Commission and state commissions to develop uniform separations procedures were begun in 1941 and culminated in the Separations Manual in October, 1947.

There was some dissatisfaction with the original Separations Manual and various modifications were proposed by several commissions and further joint studies were made by representatives of the National Association of Railroad and Utilities Commissioners

and the Federal Communications Commission. At the Charleston, South Carolina, Convention of the National Association of Railroad and Utilities Commissioners held in October, 1951, an amendment to the original Separations Manual, known as the Charleston Plan was proposed by the Federal Communications Commission and unanimously accepted by the National Association of Railroad and Utilities Commissioners. Of all states having recent rate proceedings only West Virginia and New Hampshire have failed to follow the Manual as modified by the Charleston Plan.³⁶

This method of separation was followed by Southwestern in this proceeding and accepted by witnesses on behalf of the commission staff. However, the Cities contended that the Manual violates the Constitution of Arkansas and confiscates the money of local subscribers for the benefit of long-distance lines of the American Company because of an alleged inequitable separation of accounts involving station equipment, service order work, and sales and advertising expense.

An acceptable separations method must embody existing legal principles, and provide a firm and definite standard to delineate the respective fields of state and federal authority.³⁷ The

Re Coast Counties Gas & E. Co. (Cal) Decision No. 45926, July 3, 1951.

³⁴ (1913) 230 US 352, 57 L ed 1511, 33 S Ct 729, 48 LRA NS 1151, Ann Cas 1916A 18.

³⁵ (1930) 282 US 133, 75 L ed 255, PUR 1931A 1, 51 S Ct 65.

³⁶ In rejecting the Charleston Plan, the New Hampshire Commission stated: "The Charleston Plan modification of the 1947 Separations Manual increases the amount of plant and associated expenses assigned to interstate toll service, thus practically relieving this subsidization, but the evidence shows that it still fails properly to evaluate the true state of

conditions here in New Hampshire . . . but New Hampshire, by reason of its seasonal variations beyond those of the average, does not receive proper consideration from such a uniform plan." Re New England Teleph. & Teleg. Co. (1952) 97 PUR NS 410, 415.

³⁷ The proper regulation of rates can be had only by maintaining the limits of state and federal jurisdiction, and this cannot be accomplished unless there are findings of fact underlying the conclusions reached with respect to the exercise of each authority. In view of the questions presented in this case, the validity of the order of the state commis-

RE SOUTHWESTERN BELL TELEPH. CO.

"use" standard was adopted by the United States Supreme Court as an appropriate basis for separating the interstate and intrastate operations of a business in *The Minnesota Rate Cases*, *supra*.³⁸ This principle was applied to the regulation of telephone service in the case of *Smith v. Illinois Bell Teleph. Co.* *supra*.³⁹

It is generally agreed that the Separations Manual together with the modifications introduced by the Charleston Plan embodies the fundamental "relative use" concept established by the courts.⁴⁰ Any substitution or deviation from the Manual, as modified, must therefore be examined from the point of fulfillment of the relative use concept.

The Cities' basic objection to the Charleston Plan involves the separation of station equipment and the operating expenses related to such equipment. Station equipment consists of the telephone instrument and all wire and apparatus leading from the instrument to the main pole line or cable where it joins lines leading from other subscribers and extends to the switchboard.

The Charleston Plan separates this category of equipment together with the remainder of the outside exchange plant on the basis of minutes of use.

Mr. Honaker, the Cities' chief witness on separations, contended that due to the peculiar characteristics of the class of plant designated as station equipment such a separation resulted in inequities to the exchange subscribers. Mr. Honaker stated that station equipment is singular and unique in that (a) actual use consumes only 2 per cent of the time, (b) associated expenses do not vary with use, (c) station equipment is the one item of plant that each and every subscriber must have, and (d) station equipment renders a common service to the rest of the plant and its use is affected by the nonlimiting feature of the flat rate billing procedure for local service. Because of these factors, Mr. Honaker objected to the application of the actual-use basis for separation of station equipment while accepting such a basis for all other telephone plant including subscribers' lines and terminal equipment.

While these factors apply to station equipment, the evidence indicates that other classes of plant have similar characteristics. A high ratio of idle time to total time is common throughout the telephone plant; the evidence shows that total exchange lines plant in Arkansas is in use less than 4 per cent of the time. It does not appear reasonable to us to qualify the "use" basis as

sion can be suitably tested by an appropriate determination of the value of the property employed in the intrastate business and of the compensation receivable for the intrastate service under the rates prescribed. 230 US at p. 435

³⁸ When rates are in controversy, it would seem to be necessary to find a basis for a division of the total value of the property independently of revenue and this must be found in the use that is made of the property; that is, there should be assigned to each business that proportion of the total value of the property which will correspond to the extent of its

employment in that business. 230 US at pp. 434-436.

³⁹ " . . . while the difficulty in making an exact apportionment of the property is apparent, and extreme nicety is not required, only reasonable measures being essential . . . it is quite another matter to ignore altogether the actual uses to which the property is put. . . ." 282 US at p. 150, PUR1931A at p. 8.

⁴⁰ *Indiana Bell Teleph. Co. v. Public Service Commission* (Ind CC 1952) 93 PUR NS 480; *Re Wisconsin Teleph. Co.* (Wis 1952) 93 PUR NS 490; *Re Southern Bell Teleph. & Teleg. Co.* (Tenn 1950) 84 PUR NS 65.

ARKANSAS PUBLIC SERVICE COMMISSION

applied to certain classes of plant simply because the actual time of use is small in relation to total available time. The facts relied on by Mr. Honaker do not provide the basis for rejecting the "use" concept in separations of station equipment; they merely describe a generally known operating condition in the telephone industry.

The evidence indicates that the remaining factors contended by Mr. Honaker to be unique to station equipment apply also to other classes of plant. Expenses associated with all classes of telephone plant do not vary appreciably with use. Many other items of plant in addition to station equipment are personal to the subscriber, including a substantial portion of the aerial wire and cable circuits and step-by-step dial equipment. In view of the interrelationship of all telephone plant, it is questionable which class renders common service to the remainder. We cannot find evidence to support the premise that inequitable separations result from the application of the use principle to station equipment because of the singular or unique characteristics of that plant.

Mr. Honaker contended that the result of the Charleston Plan method of separation assigns $5\frac{1}{2}$ per cent of station equipment to interstate operations, while $24\frac{1}{2}$ per cent of all other plant is so assigned and clearly reveals the inequities of the Charleston Plan. Such a contention fails to consider the nature of telephone plant. To furnish toll service, the company has provided plant at both the central office and between exchanges in different cities. This plant, unlike station equipment, is used only for toll calls. It is clear that any separation based on use will

result in station equipment being allocated in a different proportion than the rest of the plant.

Mr. Honaker proposed to substitute for the actual use basis of separation for station equipment, the basis of the prior separation of the remaining telephone plant. Such a proposal ignores the fact that certain telephone plant is devoted exclusively to toll as we have previously noted. If Mr. Honaker's theories are carried to a logical conclusion, subscriber lines from the station to the central office and the associated central office terminations should likewise be apportioned over the other plant, resulting in over 50 per cent of the plant being apportioned on the basis of other plant.

Mr. Honaker contended that the value of the standby time is not appropriately measured by the actual use of station equipment. His method of recognizing the value of this class of plant during the 98 per cent of the time when it is not in use is allocation on the basis of the use of all other plant. If this method amounts to a recognition of value, it is solely because a conclusion has been made that station equipment is more valuable for interstate than for intrastate services. It is clear that the actual costs of standby time are not measured by this method. Mr. Honaker has selected a ratio which has no logical relationship to the plant being allocated, and inevitably results in the allocation of a greater amount of plant to interstate operations. We do not believe that sound "use" principles of separation support the argument that this method more equitably allocates standby time.

Mr. Honaker's proposals regarding modification of the separation proce-

RE SOUTHWESTERN BELL TELEPH. CO.

dures applied to service order work involve the same principles concerned in the discussion of equitable separation of station equipment. Although Mr. Honaker proposed to separate such expenses on the basis of the prior separation of all plant in service, order work to station equipment supports the Manual procedures for its separation on the basis of the separation of station equipment.

The proposals of Mr. Honaker have been presented in several other jurisdictions and rejected by the commissions or courts in all jurisdictions except West Virginia.⁴¹

We are not unaware of the complexities involved in the determination of an equitable separation method. However, for the first time since the preparation of the Manual almost unanimous agreement on a modification of the Manual method has been reached by the various jurisdictions. The jurisdictional aspects of the separations problem necessitates a single, uniform method of separation. In the absence of a clearly acceptable substitution which surpasses the present Manual in equitability and practicability, we cannot abandon the uniform procedures developed over ten years of study and accepted by the National Association of Railroad and Utilities Commissioners and the Federal Communications Commission. The Manual provides a definite standard to determine the zone of interstate and intra-

state operations, and no determination of these zones can be equitably made if it depends upon the convenience or interests of the parties or particular regulatory agency involved. We feel that in recognition of the jurisdictional nature of the problem, additional studies and reconsideration of separations problems should be undertaken by representatives of the National Association of Railroad and Utilities Commissioners and the Federal Communications Commission jointly, and that departure from the Manual should not be undertaken by individual commissions until such time as general agreement has been reached through these agencies.

While we will not hesitate to adopt such modifications as are reasonable, we are satisfied from the evidence in this case that the commission is justified in following the Charleston Plan method of separations for the purpose of fixing Arkansas intrastate telephone rates.

Additional Cost of Replacements

[22] Evidence submitted by witnesses for Southwestern and the commission staff indicates that Southwestern's depreciation expense based on the original cost of telephone plant installed prior to the current period of inflationary prices, and required by the Uniform System of Accounts for Telephone Companies prescribed by the Federal Communications Commis-

⁴¹ The circuit court of Marion county, Indiana, in the case of *Indiana Bell Teleph. Co. v. Public Service Commission*, *supra*, note 40, 93 PUR NS at p. 488, stated: "The findings show sufficiently the reasons for rejecting the commission's separations methods sponsored by Honaker, i.e., they are not properly based on use and are unreasonable and appear to have been proposed and accepted solely as a means

for denying relief to the company." The Tennessee Railroad and Public Utilities Commission in rejecting Mr. Honaker's proposal, stated: "His proposed adjustment would be . . . arbitrary and in conflict with recognized separation procedures as included in the record." *Re Southern Bell Teleph. & Teleg. Co.*, *supra*, note 40, 84 PUR NS at p. 70.

ARKANSAS PUBLIC SERVICE COMMISSION

sion,⁴² is inadequate and does not provide for the high cost of current replacements of telephone plant.⁴³ Southwestern is, therefore, compelled to seek new capital for replacement of older plant as well as for new additions and improvements.

We are acutely aware of this problem in utility regulation, and we recognize that depreciation expense computed on original cost during this period of inflation may not maintain the capital committed to the utility service. The problem is currently under consideration by various regulatory bodies, and proposals have been made to change the Uniform System of Accounts to allow for additional depreciation expense.

However, until some definite action has been taken to modify the Uniform System of Accounts, we do not feel that we can allow this expense for rate-making purposes. Moreover, depreciation expense in excess of amortization of original cost is not recognized by the federal government for income tax purposes at this time, although hearings have been held to consider proposals to modify the present law. Pending a revision of this law, an allowance for additional depreciation expense would require an increase in revenues of more than twice the amount of the required expense to provide for additional income taxes. We feel that it is unreasonable to expect the ratepayer to bear this excessive burden.

Revenue Deficiency

Southwestern's Arkansas intrastate revenues during the year 1952, excluding rates collected under bond since September 21, 1952, were \$16,898,903. Evidence presented by witnesses for the commission staff indicates that based upon the telephones in service at the end of 1952, the revenues would have amounted to \$17,139,584, exclusive of rates collected under bond and after giving effect to the revised traffic agreements with connecting companies. The evidence shows that the additional revenues resulting from the increased rates in effect under bond since September 21, 1952, amount to \$2,404,499 annually based on telephones in service at December 31, 1952.

Telephone service in Arkansas is provided by a network of telephone facilities owned and operated by Southwestern and 91 other operating telephone companies ("Independents"). The facilities of both the Independents and Southwestern are jointly used in providing toll service to or from the exchanges served by the Independents and both companies incur a portion of the expense and share in the revenues. The basis for the division of the revenues is covered by a contract ("Traffic Agreement") between Southwestern and each Independent company. The evidence shows that as a result of the demands by the Independents, revised Traffic Agreements have been tendered to all Independents effective January 1,

⁴² Federal Communications Commission Rules and Regulations Part 31, Uniform System of Accounts, § 31.02-80(a): "Depreciation charges shall be computed by applying the composite annual percentage rates considered applicable to the original cost . . . of each class of depreciable telephone plant owned or used by the company."

2 PUR 3d

⁴³ Southwestern's witnesses claimed that \$811,363 of additional revenue was required to provide adequate depreciation accruals. However, this amount was incorrectly computed and no adjustment was made to reflect debt financing of the utility plant. A corrected amount of \$433,377 was computed by witnesses for the commission staff.

RE SOUTHWESTERN BELL TELEPH. CO.

1953, resulting in a decrease of \$115,000 in Southwestern's intrastate revenues. The contracts became effective January 1, 1953, which is instantaneous with the 1952 year-end level, and therefore, we believe that an allowance should be made for the decreased revenues resulting from the revised Traffic Agreements. As herein-after found, this loss in revenues should be recovered from toll subscribers.

Consistent with an end of period rate base and expenses based on the level of operations at December 31, 1952, we accept the computation of revenues based on the year-end level in determining the revenue deficiency and find such deficiency to be \$2,550,000 on an annual basis as shown in Appendix II.

ORDER

It is, therefore, *ordered*:

(1) That the rate base of December 31, 1952, in the amount of \$42,248,419, as discussed in this opinion, is hereby established.

(2) That a rate of return of 6 per cent be allowed;

(3) That Southwestern's operating expenses and taxes for the test period ending December 31, 1952, are \$17,201,349;

(4) That the operating revenue deficiency is \$2,550,000 per year, based on telephones in service at December 31, 1952;

(5) That Southwestern is denied the requested rate increases aggregating \$3,850,000 per year, and is al-

lowed a rate increase of \$2,550,000 per year;

(6) That the increased schedule of exchange rates for the state of Arkansas placed into effect September 21, 1952, under bond be, and is hereby, approved from that date until new schedules are approved by the commission, and the surety bonds filed by Southwestern on September 9, 1952, and March 2, 1953, be, and are hereby, canceled, discharged, and returned to the company and its surety without liability attaching thereon;

(7) That Southwestern shall submit on or before the effective date of this order, for the approval of this commission, (a) revised schedules of toll rates that will compensate Southwestern for the decrease in revenues occasioned by the revised traffic agreements with the Independents; (b) a new rate schedule for coin boxes increasing such rate from 5 cents to 10 cents per local call; and (c) a revised schedule of exchange rates which will produce annual revenues equal to the difference between the rate increase of \$2,550,000 allowed herein and the annual additional revenues produced by the revised schedules in (a) and (b) above. All schedules are to be based on stations in service at December 31, 1952;

(8) That this order is dated October 5, 1953, and shall be effective October 20, 1953; and

(9) This commission retain jurisdiction of this proceeding for such further action as may be deemed necessary.

ARKANSAS PUBLIC SERVICE COMMISSION

APPENDIX I

Southwestern Bell Telephone Company	
Arkansas Intrastate Operations	
Net Investment Rate Base at December 31, 1952	
Telephone plant in service	\$50,357,486
Telephone plant under construc- tion	2,332,512
Plant held for future use	42,610
	<hr/>
	\$52,732,608
Less—Reserve for depreciation ..	11,048,598
	<hr/>
	\$41,684,010
Materials and supplies	564,409
	<hr/>
	\$42,248,419

APPENDIX II

Southwestern Bell Telephone Company	
Arkansas Intrastate Operations	
Cost of Service and Deficiency in Operating Revenues	
Based on Net Investment Rate Base	
Return (6% on net investment rate base of \$42,248,419)	\$2,534,905

Operating expenses:	
Maintenance	\$3,793,139
Depreciation	1,870,052
Traffic	4,216,554
Commercial	1,495,130
Revenue accounting	398,049
Operating rents	300,100
General services and licenses ..	189,450
Relief and pensions	643,363
Other general expenses	701,766
Compensation	26,400

Total operating expenses	\$13,634,003
Operating taxes:	
Operating	1,029,324
State income	235,902
Federal income	2,302,120
	<hr/>
Total operating taxes	\$3,567,346
Provision for uncollectibles	66,541

Total cost of service—revenue requirements	\$19,802,795
Less—Operating revenues (in- cluding \$119,867 interest charged to construction)	17,259,451
	<hr/>
Deficiency in operating reve- nues	\$2,543,344
Rounded to \$2,550,000	

FLORIDA RAILROAD AND PUBLIC UTILITIES COMMISSION

Re Florida Public Utilities Company

Dockets Nos. 3657-GU, 3937-GU
Order No. 1962
December 28, 1953

APPPLICATION by gas company for authority to reduce com-
mercial rates in certain municipalities; granted with pro-
vision that any interested party file objections or exceptions
within a period of thirty days from date of order.

Rates, § 381 — Gas — Competitive fuels.

1. Authority to reduce commercial gas rates in three communities was granted so that the company would be able to compete with nonregulated fuel, p. 26.

Return, § 93 — Gas company.

2. Reductions in commercial gas rates, authorized so that the company could compete with nonregulated fuels, that would reduce the company's return on gas properties from 6.97 per cent to 6.47 per cent, were considered

RE FLORIDA PUBLIC UTILITIES CO.

just and compensatory in view of the fact that the loss of commercial customers could result in an even lower rate of return, p. 26.

By the COMMISSION: By this proceeding, in Docket No. 3937-GU, Florida Public Utilities Company, a Florida corporation and a public utility within the meaning of Chapter 366, Florida Statutes, seeks approval of a reduction in its gas rates for gas sold for commercial uses in West Palm Beach, Lake Worth, and Palm Beach, Florida. In Docket No. 3657-GU, applicant on October 6, 1952, filed a petition for reduction of its commercial gas rates. On November 6, 1952, the commission by letter granted temporary approval of the reduction requested pending the holding of a public hearing. The public hearing was held on December 4, 1952, at West Palm Beach, Florida, pursuant to due notice and the following appearances were made:

George W. Coleman, West Palm Beach, appeared for the applicant; there were no protestants.

No further proceedings were had in Docket No. 3657-GU and the temporary authority granted on November 6, 1952, has continued in full force and effect.

On November 18, 1953, Florida Public Utilities Company filed its sworn application for further revised (lower) rates for gas for commercial uses in West Palm Beach, Lake Worth, and Palm Beach, as aforesaid. This application was assigned Docket No. 3937-GU. The commercial rates now sought for the three municipalities are set forth in Appendices "A" and "B" hereto attached and made a part of this order by reference [Appendices "A" and "B"

omitted herein]. The rates sought for the first 15,000 cubic feet of gas sold are identical with the rates which were proposed under Docket No. 3657-GU. Under said docket, however, the minimum monthly bill was \$21.17 for West Palm Beach and Lake Worth and \$22.60 for Palm Beach (based upon a required minimum purchase of 15,000 cubic feet of gas per month). Under the present application, the minimum monthly bill is \$1.63 per month. After the purchase of 15,000 cubic feet of gas, the \$1.09 proposed for the following 85,000 cubic feet in Docket No. 3657-GU has been reduced to one dollar for the first 35,000 cubic feet and 90 cents for the next 50,000 cubic feet and the rates in excess of 100,000 cubic feet have been reduced from 68 cents to 65 cents for the following 150,000 cubic feet and 60 cents in excess of 250,000 cubic feet.

Florida Public Utilities Company, in its application, points out that the commercial minimum charge here proposed is the same as the minimum charge under its general gas rate schedule applicable to said three communities; that due to the minimum charge under its present "commercial rate code P" applicable to said three communities purchasers of gas for commercial uses in volumes of not exceeding 15,000 cubic feet per month have found it advantageous to purchase gas for commercial uses under applicant's "general gas rate schedule" and the step or block rates under Appendices "A" and "B" are in both cases the same as the step or block

FLORIDA RAILROAD AND PUBLIC UTILITIES COMMISSION

rates under applicant's aforesaid general gas service rates applicable to said three communities in respect to purchases of gas each month in volumes not exceeding 15,000 cubic feet.

[1] This reduction of commercial gas rates is requested in order that applicant may compete with other fuels which are not subject to regulation. In its application, applicant states that competing fuels are obtainable by commercial users at rates lower than applicant's present rates and that applicant is thereby losing and will continue to lose commercial customers and revenues in the three communities involved unless it is permitted to put into effect the commercial rates proposed.

[2] In addition to the public hearing held in Docket No. 3657-GU, the commission has conducted an investigation of this matter and has made an analysis of the financial exhibits which were filed with the utility's application. Exhibit No. 15 accompanying the application shows that the utility's rate of return from its gas properties if its present application for rate reduction is allowed will be reduced from 6.97 per cent under its present rates to 6.47 per cent, or $\frac{1}{2}$ of one per cent. A loss of commercial customers could result in an even lower rate of return.

In consideration of the premises, the commission finds that the application of Florida Public Utilities Com-

pany should be granted. The schedules of rates and charges set forth in Appendices "A" and "B" attached hereto [omitted herein] provide commercial rates and charges which are just, reasonable, and compensatory. The commission further finds, however, that interested parties should be allowed a period of thirty days from the date of this order within which they may file objections or complaints to the approval of said revised commercial rates and that should any objections or complaints be filed within such period, this cause should be reopened for further hearing. It is, therefore,

Ordered, adjudged, and decreed by the Florida Railroad and Public Utilities Commission that Appendices "A" and "B" hereto attached [omitted herein] be and they are hereby approved as the lawful rates and charges authorized for commercial users of gas in West Palm Beach, Lake Worth, and Palm Beach, Florida, for meters read on and after January 1, 1954. It is *further*

Ordered that any interested party may file objections or exceptions to the reduction of commercial rates herein allowed within a period of thirty days from the date of this order. In the event any objection or exception is filed within said period of time, this cause will be set for further public hearing.

NORTH ADAMS v. BERKSHIRE STREET R. CO.

MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES

City Council of City of North Adams

v.

Berkshire Street Railway Company

D.P.U. 10752
January 27, 1954

PETITION by city for order requiring carrier to restore certain bus service and to reopen waiting room; dismissed.

Service, § 231 — Operation at a loss.

1. The department cannot compel a transit company to operate at a loss, p. 28.

Service, § 233 — Curtailment of transit service — Inadequate revenue.

2. A transit company operating on an over-all marginal revenue basis is justified in abandoning certain services which public convenience and necessity no longer require, p. 28.

Service, § 269 — Transit company — Closing of waiting rooms.

3. A transit company operating on an over-all marginal revenue basis is justified in closing a waiting room, not essential to public welfare, to cut expenses, p. 29.

APPEARANCES: Edmund J. Moore, for Berkshire Street Railway Company; Samuel E. Levine, City Solicitor, for city of North Adams; Edward N. Gadsby, Counsel, for Department.

By the **DEPARTMENT:** Effective November 29, 1953, Berkshire Street Railway Company announced certain schedule changes affecting its operations in Pittsfield and North Adams. At about the same time, it closed the waiting room which it had been maintaining on State street in North Adams. The city council and city manager of North Adams have protested these changes in service in so far as

they affect that city, in connection with which protest a public hearing was held in North Adams on December 17, 1953.

Respondent operates an interurban bus system throughout Berkshire county, and intraurban service in the larger centers of population. Its scheduled operations cover 161.44 route miles which were served in 1952 by vehicles running 2,350,516 bus miles carrying some 9,114,348 passengers. Its operating results for the year 1952 and comparative results for the nine months ending September 30, 1952, and September 30, 1953, are as follows:

MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES

	Year 1952	9 mos. ending	
		9/30/52	9/30/53
Operating Revenues	\$829,168	\$598,010	\$584,817
Expenses			
Operation and maintenance	706,495	524,777	512,366
Depreciation	38,932	29,302	29,808
Taxes and licenses	62,939	48,452	49,445
Operating rents	(1,779)	(1,303)	(1,303)
Total expenses	806,587	601,228	590,317
Gross income	23,236	19,443	15,940
Interest and other deductions	24,034	18,220	17,567
Net income before income tax	(798)	1,223	(1,627)

The foregoing figures indicate an operating ratio for the year 1952 of 97.28 per cent, for the nine months ending September 30, 1952, of 96.94 per cent, and for the same period ending September 30, 1953, of 97.45 per cent. We have held that operating ratios of comparable size indicated the need for additional revenues in connection with investigations of the affairs of this respondent. Re Berkshire Street R. Co. (1951) D.P.U. 9119, 88 PUR NS 21; id. D.P.U. 10306, May 6, 1953. In D.P.U. 10306, in fact, which case involved an increase in fares within the city of North Adams, we pointed out that there seemed to be "room for schedule rearrangements in respondent's operations which should realize some further operating economies." Respondent has apparently taken us at our word, and the instant complaint is one of the results.

In the orders in the two cases to which we have referred, i.e., D.P.U. 9119 and D.P.U. 10306, *supra*, respondent was permitted to put increased fares into effect throughout its territory. The increases within the city of Pittsfield were effective February 18, 1951, and further increases over the entire system, including the North Adams area, were made effective May 17, 1953. We noted in our

2 PUR 3d

findings in these cases that there was a definite and continuing tendency toward decreased traffic on this carrier, not traceable to the fare increases. That this tendency is still continuing appears clearly from the figures now before us.

[1, 2] There are only two ways that a privately owned carrier can meet the situation presented by constantly decreasing gross revenues. It can either increase its fares, and hope that the loss of traffic induced thereby will be more than overcome by the increased revenue per passenger, or it can cut its expenses. It cannot continue to run at a loss, and we cannot compel it to do so. Since 75 per cent or more of a bus company's expenses are direct labor charges, and since there is little or no room for economies in other directions, it must normally seek to decrease its costs, if that is the program adopted, by cutting its labor costs. A bus company is a facility for mass transportation. If the number of persons who wish to patronize it is not sufficient to support some particular operations, particularly when its overall operations are on a marginal basis, we can do nothing except hold that public convenience and necessity no longer requires these services, and that the company is justified in abandoning them. As we said in Re Rapid

NORTH ADAMS v. BERKSHIRE STREET R. CO.

Transit, D.P.U. 10609: "We believe it to be our duty to the general public to preserve as best we can the remnants of public transportation In doing so, we must necessarily consent to the abandonment of unprofitable service, ever so regrettable as may be the impact of this action upon relatively few persons."

It appears that the Sunday service, the discontinuance of which is here complained of, was, at the very best, a marginal service. On the Hospital-Houghton street run on Sundays, respondent was losing \$654 a year out-of-pocket, and on the Briggsville-Blackinton run, it was losing \$1,538 a year. Passenger counts showed an average of less than three passengers per Sunday trip on the Hospital-Houghton street loop, and five passengers on the Blackinton trips and three on the Briggsville trips. It may be that the patronage on these lines at church time is adequate, although respondent's passenger counts do not by any means indicate patronage in such numbers as were observed by the members of the public who made statements at the hearing. However, a bus company cannot be expected to pay operators to run all day Sunday for the sake of one or two remunerative trips. The Houghton-Hospital loop shows an over-all annual loss of \$993 a year, before the instant curtailments, and the Blackinton-Briggsville route shows a comparable loss of \$4,049. As the result of these schedule changes, respondent has been able to decrease its operating force in the North Adams division from twenty-four men to twenty-two. This program is part of a general retrenchment program placed in effect by respondent in both the Pitts-

field and North Adams divisions, though these are the only routes on which Sunday service was completely suspended.

We are forced to conclude, after consideration of the testimony in these proceedings, that public convenience and necessity no longer require the service curtailed by respondent on November 29, 1953.

The waiting room on State street in North Adams was voluntarily established by respondent in 1943 under pressure of an application of the city government to the department. Respondent had been paying \$90 a month rent for these quarters and was receiving \$10 a month on a sublease to a concessionaire who policed them. The current concessionaire had moved out, and respondent had not found a replacement, though we doubt that any very serious effort was made in this direction. Policing of this nature is required, as experience everywhere indicates. This was respondent's only waiting station. While it maintains a division office in North Adams, there is only one employee present in such office. His duties require him to be out of the office at times during the day, and he is not present at all during the evening.

[3] We cannot find that the maintenance of a waiting room in North Adams is so essential to the public welfare as to justify us in ordering it to be re-established. The resultant saving in expenses is sufficient reason for respondent's action. We believe it to be far preferable that the public be deprived of the convenience of a waiting room than of necessary transportation. Respondent's earnings position is not such as would justify mainte-

MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES

nance of more than the most necessary of service facilities. There are relatively few waiting rooms of this nature still maintained by bus companies in the commonwealth, and those few are almost without exception in large metropolitan centers.

For the foregoing reasons, after public hearing, investigation, and consideration, it is hereby

Ordered: That the petition of the city of North Adams in D.P.U. 10752 be and the same hereby is dismissed.

NORTH CAROLINA UTILITIES COMMISSION

Re Albemarle Telephone Company

Docket No. P-1, Sub 3
December 31, 1953

APPPLICATION by telephone company for authority to increase rates; granted.

Return, § 24 — Reasonableness — Attraction of capital.

1. A telephone company should be granted a rate increase where additional capital is needed to improve and expand plant in service and the present return is insufficient to attract the necessary capital, p. 32.

Return, § 111 — Telephone company.

2. A return of 6.5 per cent on net investment was deemed fair and reasonable for a telephone company, p. 32.

APPEARANCES: E. T. Bost, Jr., Attorney at Law, Concord, for the applicant. No protestants.

WINBORNE, Chairman: The above-captioned matter came before the commission for hearing on December 1, 1953, upon an application filed by the Albemarle Telephone Company, Inc., on September 9, 1953. Notice of said hearing was duly published in the Stanly News and Press, Albemarle, North Carolina, but no protests were filed and no protestants appeared at the hearing.

In support of its application, L. D. Coltrane, Jr., secretary-treasurer and general manager of the company, testi-

fied that the Albemarle Telephone Company had three exchanges; one in Albemarle, one at Badin, and another at Oakboro, and that said three exchanges served practically all of Stanly county, including the communities of New London, Richfield, and Misenheimer. He further testified that the Concord Telephone Company owned 94 per cent of the stock of the Albemarle Telephone Company and that the balance was owned by individuals. The present central office building and equipment, according to the witness Coltrane, is entirely inadequate to supply public needs and its facilities have been taxed to the limit, and the

RE ALBEMARLE TELEPH. CO.

only thing that can now be done to improve the service and to supply the need of the communities it serves is to construct an entirely new building at another location in Albemarle and install new dial central office equipment, and also to construct a dial exchange between Richfield and New London near Misenheimer, the home of Phifer College. The witness Coltrane further stated that since 1949 the number of telephones in service had doubled and that in order to provide the service it had been necessary to place more telephones on the same line, thereby degrading the service and rendering it less satisfactory to the public, but that this had been done because of lack of proper facilities to provide proper service, and that this condition would not continue if funds were available to improve and enlarge the facilities necessary to give satisfactory service. The witness further stated that this commission had heretofore authorized the company to sell \$400,000 in preferred stock and to issue debentures in the amount of \$500,000, but that the rate of return was so small only 9 shares of stock had been sold. He further testified that the parent company, which owned 94 per cent of the stock, was not in a financial position to purchase any more stock of the Albemarle Company as it had borrowed a considerable amount of money itself, and that since the Albemarle Company had so completely failed in its efforts to obtain more money through sale of stock and bonds, that it had tried to dispose of its properties and had offered to sell same for the book value of the stock which is a little less than \$170,000, and that the company could now be purchased for said

amount; that in their efforts to dispose of preferred stock and to borrow money they had contacted the same sources from which Concord had previously procured financial aid, but were flatly turned down with the statement: "We are not interested in any way, either in preferred stock or debentures." In the opinion of the witness Coltrane, the only possible way the Albemarle Telephone Company can provide proper facilities to serve the public is by an increase in rates sufficient to produce a fair rate of return whereby capital may be attracted.

Both as evidence of the strict economies which the company had practiced and the overcrowding of the facilities by placing additional telephones on lines instead of building new lines, the witness stated that the average investment per station of the Albemarle Company was only \$112.

The applicant next offered in evidence, through its witness Phil W. Widenhouse, a financial statement which the said witness had prepared which shows that after all pro-forma adjustments have been made and the rates requested, if allowed, will produce a return of 6.92 per cent. This financial statement of the witness Widenhouse will be commented upon further in connection with the audit made by the commission staff.

Mr. V. L. Choate, chief auditor for this commission, testified that he had made a complete audit of the applicant company and had found that according to the company books it had made for the twelve-months' period ending on September 30, 1953, a rate of 4.55 per cent, but that after accounting adjustments, which he fully explained, this

NORTH CAROLINA UTILITIES COMMISSION

rate of return was reduced to 4.42 per cent, and that after pro-forma adjustments the rate of return was still further reduced to 3.02 per cent. The witness Choate then made his calculations upon the rates requested by the applicant which aggregated, according to the applicant's contention, additional revenue which amounted to \$34,152 per year, and adding this additional revenue to that which the applicant was now receiving, the rate of return would be 7.93 per cent as compared with the rate of return on the additional revenue which the witness Widenhouse testified would provide a return of 6.92 per cent. The witness Choate compared his audit with that of the witness Widenhouse and found that the exhibit of Mr. Widenhouse was in error in calculations in the amount of \$1,000 against the applicant and that, according to the exhibit of Widenhouse, the rate of return would be less than 6.92 per cent. A further comparison of the two exhibits revealed that in the audit made by the commission staff it was not known that the company had employed in August, 1953, a combination man and that an additional operator had been added to the Albemarle exchange in October, 1953, and hence these added salaries were not taken into consideration in the pro-forma adjustments made in the audit offered by the witness Choate. The witness Choate further testified that after a correction had been made in the figures offered by the witness Widenhouse and a proper inclusion had been made for the additional salaries and an allowance in unemployment tax, which

would be increased in 1954 from .9 per cent to 1.8 per cent amounting to \$966.90 on an annual basis, that the rate of return, if all of the increases asked for were granted, would enable the company to make a return of approximately 6½ per cent on its net investment in its telephone plant unless other expenses, now unascertainable, should be incurred.

Findings of Fact

[1,2] From the foregoing testimony the commission finds as a fact: (1) That the applicant company is badly in need of additional capital in order to improve and expand its telephone plant; (2) that the present rate of return of 3.02 per cent is considerably less than fair and reasonable and is not sufficient to enable the company to procure the money to provide adequate service; that a rate of return of approximately 6½ per cent is fair and reasonable for a utility in the condition of the Albemarle Telephone Company, and (3) that the rates and charges set out in the Appendix attached hereto [omitted herein] and made a part of this order will increase the present income of the company on an annual basis to approximately 6½ per cent return on net investment.

Wherefore it is *ordered* that the rates and charges set out in the Appendix attached hereto [omitted herein] shall become effective on the next billing dates following December 31, 1953.

It is *further ordered* that a copy of this order be delivered to the applicant company and to its attorney, E. T. Bost, Jr., Concord, North Carolina.

Greater Flexibility and Low Cost Protection with

"SL" INTERRUPTER SWITCHES

Not just an interrupter—not just a disconnect—but a combination that breaks loads safely—and when equipped with power fuses you get full system protection.

When specifications call for opening of circuits under moderate load you will find Delta-Star type "SL" Interrupter Switches will meet the requirements perfectly. Used with power fuses, they provide an economical means of fault protection.

Units are available in voltage ratings of 5, 7.5 and 15-KV with interrupting capacities of 400, 200 and 100 amperes respectively. Continuous capacity of switches may be as desired since the main switch is independent of the interrupter. Furnished with or without metal housings in single, two or three pole units for mounting on transformers, walls or structures.

Load interruption is accomplished by momentarily shunting the full load current through a by-pass circuit. Here the arc is extinguished by rapidly elongating it within a confining chute. Danger of external arcing or contact burning is eliminated.

There is an "SL" Interrupter Switch for every application.

Ask for Publication 4612.

WHEN YOU WANT THE BEST IN HIGH VOLTAGE SWITCHING EQUIPMENT SPECIFY DELTA-STAR

DELTA-STAR ELECTRIC DIVISION

H. K. PORTER COMPANY, INC.

OF PITTSBURGH

2437 FULTON STREET, CHICAGO 12, ILLINOIS

DISTRICT OFFICES IN PRINCIPAL CITIES



This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

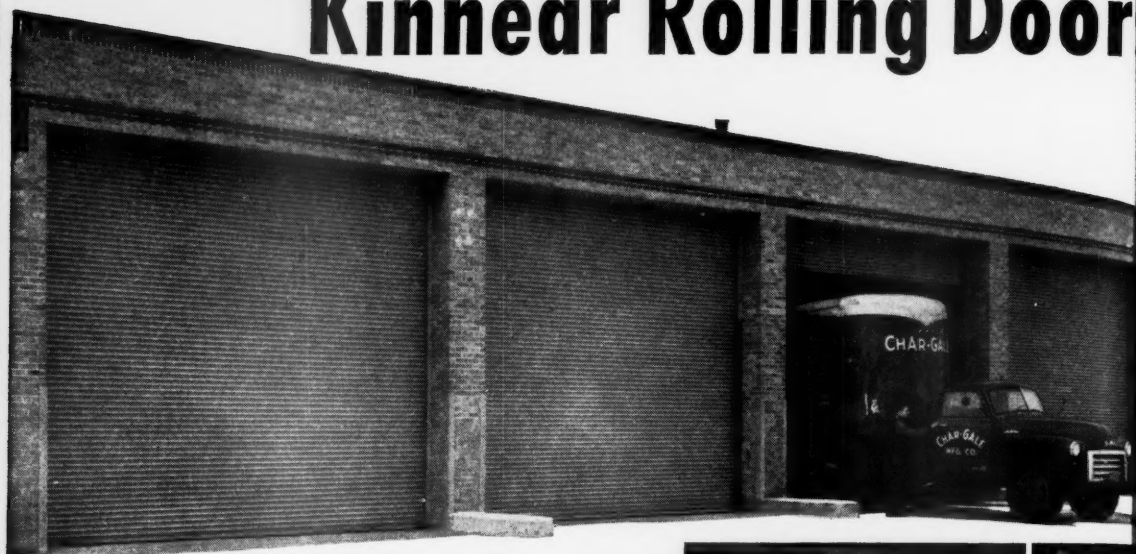


↑ "SL" Interrupter
Switch with selector and ground-
ing switch (fully interlocked).

← "SL" Interrupter Switch
mounted directly on transformer.

Interrupter in combination with
power fuses for fault protection.
↓

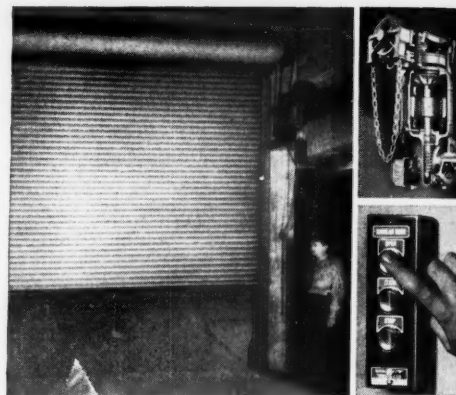
Kinnear Rolling Doors



The only type of door with all these COST-CUTTING FEATURES

All overhead space remains clear for hoist, crane, conveyor equipment or other superstructure with Kinnear Rolling Doors. No floor space is lost on either side of a Kinnear Rolling Door . . . since they open straight upward. Light from overhead fixtures is never obstructed . . . Kinnear Rolling Doors coil compactly, directly over door lintel. Edges of steel curtain are locked securely in tracks from floor to lintel, insuring a secure closure and providing extra protection against fire, the elements or intrusion. Kinnear's smooth upward action is ideally suited to time-saving motor operation. Kinnear Motor Operators do the job. Low maintenance cost . . . Kinnear's interlocking steel slat curtain lasts longer, but permits individual slats to be replaced if accidentally damaged.

KINNEAR Steel ROL-TOP DOORS



Kinnear Steel Rolling and ROL-TOP Doors are heavily galvanized as per A.S.T.M. standards to provide a long-lasting weather-resistant surface. Special Kinnear paint bond provides for easy painting and complete paint adhesion.

Kinnear Steel ROL-TOP doors of strong all-metal sections combine the advantage of space-saving upward action with easy adaptability for use with glass. Any number of sections may be designed to provide for glass lights of any size. Kinnear ROL-TOP Doors open smoothly and easily on ball bearing rollers, and are built in a full range of sizes for manual, chain or motor operation.

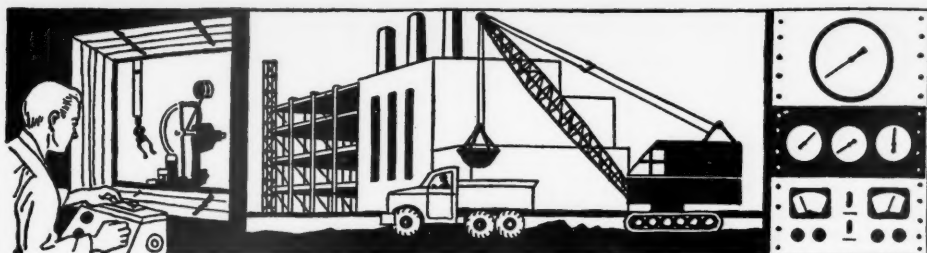
The KINNEAR Manufacturing Co.

FACTORIES: 2060-80 Fields Ave., Columbus 16, Ohio
1742 Yosemite Ave., San Francisco 24, California

Offices and Agents in All Principal Cities

KINNEAR
ROLLING DOORS

Saving Ways in Doorways



Industrial Progress

Equitable Announces 1954 Expansion Plans

EQUITABLE Gas Company has an \$800,000 expansion program scheduled during 1954, according to A. W. Conover, president. Included in the program is the final development and completion of the company's Logansport storage pool. This pool is estimated to have a storage capacity of 3 million cubic feet. When fully developed it will substantially increase Equitable's underground storage capacity for meeting Pittsburgh's and Allegheny County's high winter gas demand. The 1954 program makes a total of \$58,440,000 Equitable will have spent since the end of World War II to keep pace with Pittsburgh's growth, Mr. Conover stated. To accomplish this task, in 1954, the company has allocated approximately \$2,000,000 to maintain its gas production at current levels, \$2,100,000 for replacements of lines and other facilities to maintain the property's operating efficiency, \$1,400,000 for further development of underground storage and \$1,800,000 for extensions and improvements of its distribution system.

Issues Bulletin on Automatic Fire Protection Systems

THE Automatic Sprinkler Department of Blaw-Knox Company has published an eight page bulletin, No. 66, entitled, "Fire Can Destroy Your Business." This new bulletin points out that 43 per cent of firms whose records are lost in fires never reopen and an additional 28 per cent of business within three years.

Outlining the advantages of Blaw-Knox Automatic Fire Protection Systems, the bulletin stresses the fact that a 50 to 90 per cent reduction in fire insurance costs due to the installation

of Blaw-Knox System will pay the cost of the complete installation in five to ten years. Various types of systems available such as water, fog, foam, and carbon dioxide are discussed and illustrations are shown of the new Blaw-Knox spray sprinkler and other devices installed by the company.

Copies of bulletin, No. 2426, may be obtained by writing Blaw-Knox Company, Automatic Sprinkler Department, 829 Beaver avenue, Pittsburgh 33, Pa.

New Booklet on How to Reduce System Investment Offered By G-E

A NEW 24-page, three-color, illustrated booklet entitled "How To Reduce System Investment By Distribution System Planning and Substation Selection" has been announced as available from the General Electric Company, Schenectady 5, New York.

The booklet (GEA-5847) contains an analysis of distribution investments, a list of factors involved in determining optimum substation size, and a discussion of the types of circuits supplying distribution substations. Also cited in the bulletin are seven trends in low-cost system expansion.

Wheeling Electric Plans \$335,000 Improvement Program

THE Wheeling Electric Company is planning improvements to its facilities in 1954 totaling over \$335,000, according to an announcement by R. R. Jewell, vice president and general manager of the company.

The increased facilities will be needed largely because of an estimated 30 per cent increase in the company's electric load over the next four or five years. Included in the enlargement

program will be extensive additions to the George Washington Station, near Moundsville.

Power Transformer Reference Booklet Offered by Westinghouse

STANDARDIZATION of core form power transformers is discussed in a new 40-page booklet available from the Westinghouse Electric Corporation.

Technical in nature, this booklet relates developments in construction, materials, and operation of Type SL power transformers to the benefits the user derives from standardization of the various components.

Besides covering the construction and operation characteristics, this booklet also describes the various standardized processes used during manufacture of a Type SL power transformer. Methods of quality control, shipping, determining and limiting sound levels, and preserving oil are discussed.

For a copy of this reference-type booklet (B-5914) on Type SL power transformers, write Westinghouse Electric Corporation, Box 2099, Pittsburgh 30, Pa.

(Continued on page 28)

PUBLIC UTILITY ENGINEER

Large, long established natural gas company in the West has an opening for an experienced senior staff engineer; one who under the management can plan and supervise the preparation of regulatory and rate matters, personally testify before commissions and assist the management in problems of utility operations. It is essential that the applicant understand gas distribution and transmission operations, have a comprehensive knowledge of public utility requirements and experience in processing matters before commissions or public bodies. Position is permanent and salary is open. All replies will be confidential with the executive head of the company. Address Box 318, PUBLIC UTILITIES FORTNIGHTLY, 309 Munsey Building, Washington 4, D. C.

AIR POLLUTION



Study Of Meteorological Conditions Above New Plant Site Urged

Looking for a new plant site? To buy or build? Then take the word of industrialists and scientists, who are using the newest techniques in the study of air contaminants:

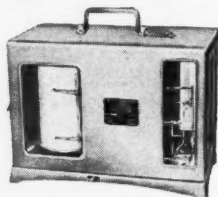
Study the meteorological conditions at various altitudes as well as ground level.

Knowledge of temperature, humidity, time, windspeed and direction can save you money.

Bendix-Friez, foremost maker of meteorological instruments in the world, offers all its facilities and experience with industries, to help you find a practical approach to minimize your air pollution problems . . . now or before they start without costly moderation of present equipment. Write for further information.



AEROVANE indicates and records windspeed and direction. Recognized as "best all-purpose wind measuring instrument yet devised." Readily installed and easily maintained.



HYGRO-THERMOGRAPH The leader in its field. Noted for precise accuracy and long-time dependability. Records relative humidity and temperature on one graph.

FRIEZ INSTRUMENT
Division of

1463 Taylor Ave., Balto. 4, Md.
EXPORT SALES
Bendix International Division
205 E. 42nd St., New York 17, N.Y. U. S. A.

INDUSTRIAL PROGRESS (Continued)

Radio Communications Network Expands In Gas Industry

ONE of the most spectacular developments in recent years in the natural gas pipeline industry has been the tremendous growth of microwave systems, according to Joseph E. Keller, special representative of the Central Committee on Radio Facilities, American Petroleum Institute. Speaking at the Gas Supply, Transmission and Storage Conference sponsored by the American Gas Association in New Orleans, recently, Mr. Keller traced the history of communications developments in the pipeline industry. He pointed out that although the industry itself is more than 80 years old, suitable microwave facilities have been available to oil and gas pipeline companies only since 1948. Yet today microwave systems are extensively operated by 22 different companies. These systems now total 14,548 system miles and represent an investment of over \$17,000,000.

These 22 companies represent only a little more than one-third of the existing pipelines. Mr. Keller predicted that many of the other companies will experience continuing demand that they utilize their facilities more effectively than they do today.

This will inevitably mean that communications networks will be greater and more stringent, Mr. Keller stated, which will result in the installation of microwave facilities by many of these companies with inestimable contributions to national defense and to every segment of the national economy which these installations make possible, unless this growth is hampered.

Texas Gas Transmission Plans \$1,596,140 Expansion

TEXAS Gas Transmission Corporation of Owensboro, Ky., has applied to the FPC for authority to construct new pipeline facilities in Louisiana to enable it to receive additional natural gas from two wholly-owned subsidiaries.

The proposed facilities, estimated to cost \$1,596,140, include an additional 2,000 horsepower compressor station, 24 miles of 16-inch pipe, and a gas purchase metering station.

IBM Brochure Shows How To Cut Billing Operation

HOW the public utility billing operation for 1,000 gas customers can be reduced from the nearly four-day cycle required under conventional punched card procedures to only a little more than two days through use of IBM's new Type 650 machine is described in the company's brochure, "Public Utility Customer Accounting," now available on request. This saving in time made possible because this new intermediate-sized electronic data processing machine combines 20,000 rotations of magnetic drum storage and table look-up operation with new high-speed reading capacity in its punched card equipment. As described in the procedure outline in the brochure, the Type 650 has a daily input of 26,000 meter reading and other cards and an output of 23,000 billing cards plus more than 4,000 miscellaneous cards.

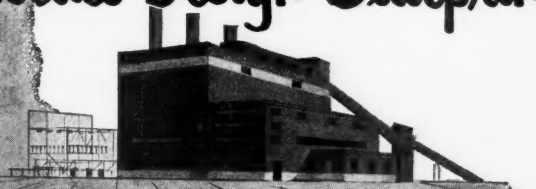
This brochure may be obtained from the Department of Information, International Business Machines Corporation, 590 Madison Avenue, New York 22, N.Y.

Plans \$22,600,000 Program

PUBLIC Service Company of Oklahoma has a \$22,600,000 construction program scheduled for 1954, which is the largest program in the history of the company.

bands
in rec
s been
ording
ne Cen
Petrole
nsmis
Americ
Mr. Kel
pments
though
ble mic
gas pi
microw
rent co
tem m
0,000.
more t
predic
perien
ilities e
ions ne
ler sta
ave fa
nable
egmen
ions n
s
wensb
const
able i
lly-ow
1,596,
essor
ase m
1,000
r four
ard pr
rough
bed in
Accou
in time
sized e
000 p
up op
s punch
e outli
of 26
of 23
ous ca
repart
ines
22, N
as a S
1954
comp
RCH

PIONEER'S Planning Precedes Design Blueprints



PIONEER SERVICE AND ENGINEERING CO.

PERFORMANCE ANALYSIS
CONSTRUCTION BUDGET
FINANCIAL STRUCTURE
LOAD FORECAST



What are your capacity needs for the short term? For the long term? Where should new plants and transmission lines be located? What changes in fuels, in power generating techniques may be anticipated? Are your sub-stations adequate? Is your distribution system designed to handle the constantly growing residential, commercial and industrial loads?

Call Pioneer into your deliberations early to help in solving these problems, to design your new plants and other facilities and to fit it all in a sound financial structure.

Pioneer's various services present a complete and well rounded series of aids that can be packaged singly in a group, or as a whole, to fit your needs. Our booklet describes these special services—it's yours for the asking.

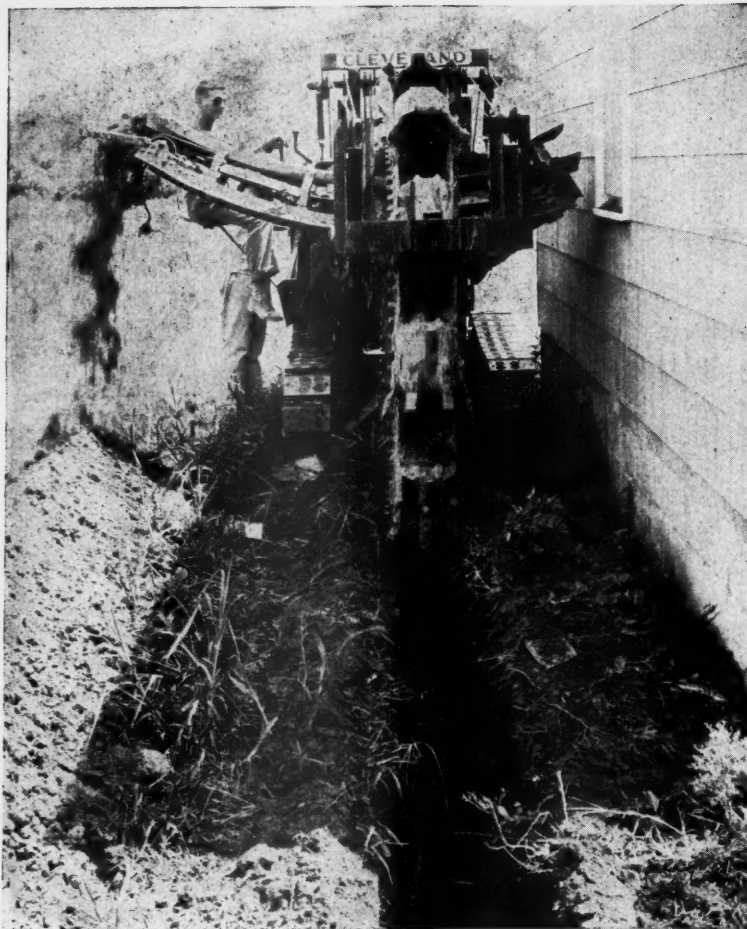
Get our booklet—
no obligation

You can use . . .

- Consulting Engineering and Power Plant Design Service . . .
- Financial Advisory Service . . .
- Stock Transfer and Dividend Investment Service . . .
- Purchasing and Expediting Service . . .
- Insurance, Rate, Accounting and Auditing Advisory Service . . .
- Load Forecast, Load Study and Performance Analysis Service . . .

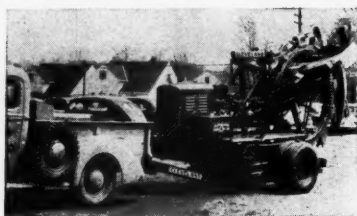


Pioneer Service & Engineering Co.
231 South LaSalle Street • Chicago, Illinois



20" from Trench to Wall

IN NORFOLK, VA. this Model 92 CLEVELAND "Baby Digger" shows how its useful compactness enables it to place a trench safely within 20" of a house wall. Balanced perfectly on its smooth full crawlers, the 92 maneuvers easily in even the closest quarters, with less damage to lawns, walks and driveways. Because it digs any size of trench from 10 to 20 inches wide and up to 5 feet deep, it is usable on a wide variety of jobs.



The 92 hustles safely from job to job . . . at legal limit speeds . . . because it's so easily portable on the drop-axle, tilt-bed CLEVELAND T5 Trailer.

Write for descriptive literature and specifications or get the full story on CLEVELANDS from your local distributor.



THE CLEVELAND TRENCHER CO.

"Pioneer of the Modern Trencher"

30100 ST. CLAIR AVENUE • CLEVELAND 17, OHIO

INDUSTRIAL PROGRESS (Continued)

World's Fastest Relay, Built by G-E

THE world's fastest transmission protective relay equipment was recently installed on a 132-kv line of Appalachian Electric Power Company in Virginia, according to General Electric Company, manufacturers of the equipment.

G-E engineers said that with new equipment the maximum response time to any fault condition occurring on the protected line is a cycle of system frequency (0.01 seconds on a 60-cycle system). Circuit breaker tripping at both ends of the line is initiated within this time after the fault has occurred.

Greater economies in the transmission of power can be effected with new equipment, the engineers said. They explained that the high speed operation of the new equipment reduces fault clearing time, increases system's stability, and allows larger amounts of power to be transmitted over lines than was previously possible.

Lincoln Tel. & Tel. Plans \$3,000,000 Program

LINCOLN Telephone & Telegraph Company, Lincoln, Nebraska, having experienced a seven-year period of record growth in facilities, looks to 1954 construction budget of nearly \$3,000,000, according to Thomas Woods, President.

Mr. Woods said in the seven years since 1946 the company has doubled its investment in service facilities. He said the cost of this added plant equipment is the cost of all plants installed during the previous 42 years of the company's existence.

A-C Bulletin

A PORTABLE "Pneu-Draulic" emergency closing device for use with standard air magnetic circuit breakers in metal-clad switchgear is described in a new bulletin released by All Chalmers Manufacturing Company.

The device, the bulletin points out, insures adequate closing speed of breakers during loss of control power. It is approximately 8 by 4 by 10 inches in size and weighs about 40 lbs. It is adapted for use on either 13.8 or 4.16 kv "Ruptair" circuit breakers.

While the safe emergency closing device is designed for emergency operation of breakers during loss of control power, it can be used to check mechanical condition of the breakers.

(Continued on page 31)

when it has been removed from the switchgear unit. Copies of the bulletin, "Emergency Closing Device," 71B8105, are available on request from Allis-Chalmers Manufacturing Company, 965 S. 70th Street, Milwaukee, Wisconsin.

Tautline Cableways

BAUERMAN Bros., Inc., has issued a 16-page catalog containing photographs, sketches and text describing types, spans, working loads and other details of tautline cableways. Included in the catalog are illustrations of cableway applications designed to be of special interest to consulting engineers and public utilities.

Copies may be obtained from Bauerman Bros., Inc., Department P-5, 522 South Clinton street, Chicago, Illinois.

Cleveland Trencher Issues New Bulletin on Model 140 Trencher

A NEW 8-page, 2-color bulletin on the Cleveland Model 140 trencher has been issued by The Cleveland Trencher Company. According to the announcement, Model 140 has been an outstanding performer for over 15

years on pipelines, water lines, drainage, irrigation, sewer lines and utilities—on all jobs from 18 to 30 inches wide and up to 5½ feet deep.

Special features of the Model 140's design and construction are fully described in the bulletin. Recent action photos illustrate the various job applications within the scope of the 140. The bulletin contains complete dimensions and specifications including a table of digging wheel and crawler speed combinations available in Cleveland's famous multi-speed transmission and a table of standard and maximum cutting widths.

Copies of the bulletin may be obtained by writing to The Cleveland Trencher Company, 20100 St. Clair avenue, Cleveland 17, Ohio.

Motorola Promotes Magnuski

HENRY Magnuski, Motorola's widely recognized engineer, inventor and nationally known authority on long-distance microwave communications systems, has been named associate director of research in Motorola's Communications & Electronics Division, according to Daniel E. Noble, division vice president.

Mr. Magnuski's inventions span

several fields. He developed Motorola's famed wartime "Walkie-Talkie," first practical back-pack FM radio, and the AN/CPN-6 radar beacon. He also designed the first 1,000-mile private microwave system in the United States. As Motorola's research specialist in mobile communications, he developed the basic circuits of the company's Sensicon receiver for two-way radio communication systems, and the VHF Cavity Resonator.

Before his promotion, Mr. Magnuski had been chief engineer of the Microwave Research Department and later chief engineer of the Communications & Electronics Division Research Department.

Self-protected Distribution Transformers Described In Bulletin

THE Standard Transformer Company, Warren, Ohio, has released a new descriptive bulletin on OISC distribution transformers with built-in surge and overload protective devices. Data and photographs on sizes through 100 KVA and ratings through 14,400 volts are included. Write for Bulletin S-302A.

(Continued on page 32)

This is not an offering of these Shares for sale, or an offer to buy, or a solicitation of an offer to buy, any of such Shares. The offering is made only by the Prospectus.

300,000 Shares

The California Oregon Power Company

Common Stock

(Par Value \$20 Per Share)

Price \$26.50 Per Share

Copies of the Prospectus may be obtained from any of the several underwriters only in states in which such underwriters are qualified to act as dealers in securities and in which the Prospectus may legally be distributed.

Blyth & Co., Inc.

The First Boston Corporation

Dean Witter & Co.

Eastman, Dillon & Co.

Kidder, Peabody & Co.

Merrill Lynch, Pierce, Fenner & Beane

Smith, Barney & Co.

First California Company

Walston & Co.

H. M. Byllesby and Company

Incorporated
Central Republic Company
(Incorporated)

(Incorporated)
F. S. Moseley & Co.

March 2, 1954.

Potomac Edison to Spend \$6,000,000 for Expansion

THE Potomac Edison Company and its subsidiaries have budgeted approximately \$6,000,000 for expansion and construction of new facilities during 1954.

Included in the budget are funds for completion and partial completion of several large projects over the system territory. Funds also have been earmarked for the expansion and re-vamping of many transmission and distribution facilities. Tentative plans call for about 100 miles of new transmission lines during the year.

New Bulletin on G-E Station-type Arresters

A NEW 28-page, two-color bulletin on station-type arresters has been announced as available from the General Electric Company, Schenectady 5, New York.

Designated as GEA 1304L, the booklet describes the operation and design of a new Thyrite (Reg. Trade Mark of G-E) magne-valve arrester that combines magnetic action and valve action. Application information and a guide for selection of arrester

ratings are provided in the illustrated publication.

Heath Tree Service Elects Officers

HEATH Tree Service, Inc., has announced the election of the following officers at their annual meeting: Milton W. Heath, president and general manager; Elizabeth W. Heath, treasurer; Charles A. Heath, vice president and operations manager.

New Load Interrupter Switch Available from Westinghouse

A NEW load interrupter switch (Type VLB) for line sectionalizing and load switching is available from the Westinghouse Electric Corporation. The Type VLB combines the functions of circuit interrupter and disconnecting switch; it will interrupt transformer magnetizing currents, line charging currents, and load currents up to the continuous rating of the switch.

The VLB load interrupter switch consists of a standard disconnecting switch (Type V) to which is added the gas-filled, load-interrupting device. Sulfur-hexafluoride gas provides

a highly effective interrupting medium, yet is not consumed and does not deteriorate appreciably during circuit interruption.

The gas-filled interrupter is a parallel-connected unit which carries current only during the interrupting interval. It is porcelain-clad, gas sealed, and requires no external supply of gas or other auxiliary apparatus for operation.

The switch is available in voltages from 7.5 to 115 kv, with a continuous current rating of 400 and 600 amperes.

For further information, write Westinghouse Electric Corporation, Box 2099, Pittsburgh 30, Pa.

W. D. Sullivan Named Vice President of B & W

W. D. SULLIVAN has been elected a vice president of The Babcock & Wilcox Company and placed in charge of the manufacturing department of the company's Boiler Division, according to an announcement by M. Nielsen, vice president in charge of the division. Mr. Sullivan was formerly regional manager of the manufacturing department and his appointment fills a vacancy created by the promotion of Mr. Nielsen who was formerly in charge of the manufacturing department.

Large Distribution Transformer Booklet Available from Westinghouse

LARGE distribution transformers (250-500 kva) designed to cope with increased load densities on distribution systems are discussed in a new booklet available from the Westinghouse Electric Corporation.

Constructional and standardization characteristics of these distribution transformers (Type SL) are described and related to economic handling and operation procedures.

For a copy of Booklet B-6134, write Westinghouse Electric Corporation, P. O. Box 2099, Pittsburgh 30, Pa.

Uses of Payloader Tractor-Shovels Shown in Booklet

THE Frank G. Hough Company has just released a fact-filled booklet designed to be of interest to public utility officials charged with the maintenance of distribution facilities. The many uses of "Payloader" tractor-shovels are shown by means of many on-the-job action photographs. Views of actual maintenance operations on the

(Continued on page 33)

This advertisement is neither an offer to sell nor a solicitation of offers to buy any of these securities. The offering is made only by the Prospectus.

NEW ISSUE

March 2, 1954

600,000 Shares

Southern California Edison Company

Common Stock

(\$25 par value)

Price \$40.25 per share

Copies of the Prospectus may be obtained from the several underwriters, including the undersigned, only in States in which such underwriters are qualified to act as dealers in securities and in which the Prospectus may legally be distributed.

The First Boston Corporation

Dean Witter & Co.

Blyth & Co., Inc.

Merrill Lynch, Pierce, Fenner & Beane

William R. Staats & Co.

of electric, gas, water, telephone transportation utilities illustrates variety of ways that "Payloaders" helping boost output and lower costs on their work.

Copies of the booklet can be secured by writing for form No. 262 to The Frank G. Hough Company, Seventh Street, Libertyville, Illinois.

P&L Has Record Construction Budget

RECORD construction budget of \$18,500,000 for 1954 was announced recently by E. H. Werner, president of the Jersey Central Power & Light Company. Of the \$18,500,000 in new construction for 1954, \$8,700,000 would be spent for new generating facilities, \$2,500,000 for transmission lines, \$2,000,000 for substations, \$4,200,000 for distribution facilities and \$650,000 for miscellaneous projects.

Construction expenditures of P&L from the end of World War

II to the end of 1953 and projected through 1956 amount to nearly \$120,000,000 or about four and one-half times the company's gross revenues for 1953.

National Electric Products Offers New Cable for Farm Use

NATIONAL Electric Products Corporation has introduced a new Type UF (underground feeder) electrical cable which is said to be particularly well-suited for use on farms and in rural areas.

Called "Neponcol" Type UF Cable, National's new product is said to be the most economical cable for direct burial underground. Available in single conductor in sizes 14 through 4, the standard color is black. In two-conductor, with or without ground wire, and three-conductor, it is available in size 14 through 10 for branch circuit and feeder services; the standard color is ivory.

Central Hudson Gas & Elec. Dedicates First Power Plant Run by N. Y. City-Water

A NEW \$3,860,000 hydro-electric plant, the first ever to use a part of New York City's drinking water to generate power for sale to private consumers, was formally dedicated recently by Central Hudson Gas & Electric Corporation.

Constructed at the outlet of a giant underground tunnel connecting two New York City reservoirs in the heart of its upstate Delaware watershed, the new 25,000 kilowatt generating plant will by agreement with the city receive without charge a daily quota of 105,000,000 gallons of water to generate power for use in the company's mid-Hudson valley system. After passing through the plant the water will continue on its way through the city's aqueduct system to a reservoir in Westchester County where it will

(Continued on page 34)

*This announcement is not an offer to sell or a solicitation of an offer to buy these securities.
The offering is made only by the Prospectus.*

\$30,000,000

Houston Lighting & Power Company

First Mortgage Bonds, 3% Series due 1989

Dated March 1, 1954

Due March 1, 1989

Price 102.189% and accrued interest

The Prospectus may be obtained in any State in which this announcement is circulated from only such of the undersigned and other dealers as may lawfully offer these securities in such State.

HALSEY, STUART & CO. INC.

DICK & MERLE-SMITH

LADENBURG, THALMANN & CO.

R. W. PRESSPRICH & CO.

SCHOELLKOPF, HUTTON & POMEROY, INC.

BAXTER, WILLIAMS & CO.

NEW YORK HANSEATIC CORPORATION

WM. E. POLLOCK & CO., INC.

AUCHINCLOSS, PARKER & REDPATH

BACHE & CO.

GREGORY & SON

SHEARSON, HAMMILL & CO.

G. H. WALKER & CO.

VAN ALSTYNE, NOEL & CO.

COOLEY & COMPANY

COURTS & CO.

BURNHAM AND COMPANY

THE ROBINSON-HUMPHREY COMPANY, INC.

STERN BROTHERS & CO.

FIRST OF MICHIGAN CORPORATION

GREEN, ELLIS & ANDERSON

IRA HAUPT & CO.

SINGER, DEANE & SCRIBNER

March 2, 1954

eventually help slake the thirst of millions of New Yorkers.

The agreement is for a period of 50 years, at the end of which time ownership of the powerhouse and related facilities will be transferred to the city.

"At a time when the issues of the further extension of government into the power business are being debated on a state and national level, this agreement is an outstanding example of coöperation between an investor-owned utility and a governmental body in solving a common problem mutually advantageous to all," Ernest R. Acker, Central Hudson president, said.

He pointed out that the coöperative relationship between Central Hudson and the New York City Board of Water Supply dated back to 1909, the year construction of the aqueduct system in the Catskills was started.

FPC Authorizes \$176,659,963 in Facilities in Last Half of 1953

DURING the last six months of 1953 the Federal Power Commission issued certificates authorizing the construction of natural gas transmission facilities which include 1,909 miles of pipeline and have an estimated total construction cost of \$176,659,963, accord-

ing to Jerome K. Kuykendall, chairman.

The new facilities are designed to add nearly $\frac{1}{2}$ billion cubic feet of daily delivery capacity to the Nation's individual transmission systems, Chairman Kuykendall reported.

The report shows that approximately \$143,445,317 of the total construction cost was for major projects—those estimated to cost \$700,000 or more. These major projects are expected to benefit 62 cities of 50,000 population or over in 11 states and the District of Columbia as well as numerous small communities.

\$15,302,000 Program Proposed By Atlantic City Electric

ATLANTIC City Electric Company plans a \$15,302,000 construction program during 1954, according to B. L. England, president. Included in the program is the sum of \$6,600,000 to substantially complete the installation of a 75,000 kilowatt unit at Deepwater station. Approximately \$1,000,000 will be spent on the completion of the station early next year so it may be put on the line in January or February, 1955.

The company also plans to spend

\$1,936,000 this year for a 132,000-volt transmission line from Deepwater Ocean City substation, stretch across New Jersey from the Delaware river to the Atlantic. It also plans to double an existing 66,000 volt line from Deepwater to the vicinity of Pleasantville, N. J.

Gas Industry to Hold Sixth National Personnel Conference

MORE than one hundred top industrial relations executives from gas and electric utilities and pipeline companies will meet in Chicago on April 15-16, for the sixth national personnel conference of the gas industry. The meeting will be held under the auspices of the General Management Section of the American Gas Association. The joint sponsors of the conference are the Personnel Committee, the Gas Industry Personnel Conference, and the Midwest Personnel Conference of the American Gas Association and the Employee Relations Section of the Southern Gas Association.

The program will offer excellent speakers who are qualified to present pertinent topics of especial interest to management executives.

New Rome Weatherproof Wire Has Outer Braid of Fiberglass

A NEW type of Weatherproof Wire in which the outer braid is glass yarn has been announced by the Rome Cable Corporation, of Rome, New York.

This new glass-covered wire is now available in Triple Knit Weatherproof Wire in sizes #14 through 4 AWG, put up in a special wholesaler's 50-foot coil package.

According to the manufacturer, the glass outer braid is inherently resistant to moisture, heat, chemical action, and abrasion. The glass yarns are said to have a tensile strength several times higher than comparable organic fibers and retain that strength indefinitely. The fibers are not affected by oils, and are resistant to most chemicals, making the braid an exceptionally durable support for asphalt coatings, and giving an especially valuable advantage in locations where chemical vapors are prevalent.

The application of glass braid in Weatherproof Wire is the culmination of several years of research conducted by the Rome Cable Corporation and the Owens-Corning Fiberglas Corporation. As a result of this research, a special "Electrical Grade" of glass was developed, with exceptional weather-resistant properties.

These Securities were placed privately for investment through the undersigned. They are not offered for sale, and this announcement appears as a matter of record only.

\$7,000,000

Eastern Utilities Associates

**Twenty-Five Year
Collateral Trust Bonds**

Kidder, Peabody & Co.

March 9, 1954.

PROFESSIONAL DIRECTORY

• This Directory is reserved for engineers, accountants, rate experts, consultants, and others equipped to serve utilities in all matters relating to rate questions, appraisals, valuations, special reports, investigations, financing, design, and construction.

THE AMERICAN APPRAISAL COMPANY

ORIGINAL COST STUDIES • VALUATIONS • REPORTS

for

ACCOUNTING AND REGULATORY REQUIREMENTS

NEW YORK WASHINGTON CHICAGO MILWAUKEE SAN FRANCISCO
and other principal cities

BLACK & VEATCH

CONSULTING ENGINEERS

Electricity, Natural Gas and Water Utilities
Production, Transmission, Distribution

Reports, Design, Supervision of Construction
Investigations, Valuation and Rates

4706 BROADWAY, KANSAS CITY 2, MISSOURI (SINCE 1915)

BODDY, BENJAMIN AND WOODHOUSE, INC.

CONSULTING ENGINEERS

JAMES W. PARKER, SENIOR CONSULTANT

*Power Plant Design, Specification, and Construction Supervision
Economic and Thermodynamic Studies, Technical Services and Reports*

28 WEST ADAMS AVENUE

DETROIT 26, MICHIGAN

DAY & ZIMMERMANN, INC.

ENGINEERS

NEW YORK

PHILADELPHIA

CHICAGO

DESIGN, CONSTRUCTION, INVESTIGATIONS, REPORTS, APPRAISALS AND MANAGEMENT



Ford, Bacon & Davis

VALUATIONS ENGINEERS CONSTRUCTION
REPORTS RATE CASES

NEW YORK • CHICAGO • LOS ANGELES

(Professional Directory Continued on Next Page)

PROFESSIONAL DIRECTORY (continued)

FOSTER ASSOCIATES

CONSULTANTS TO PUBLIC UTILITIES AND COMMON CARRIERS

FAIR RETURN RATE CASES MARKET ANALYSES
RATE DESIGN COST ANALYSES FINANCIAL ANALYSES

88 CHESTNUT STREET, RIDGEWOOD, N. J.

GIBBS & HILL INC.

CONSULTING ENGINEERS

DESIGNERS - CONSTRUCTORS

NEW YORK — LOS ANGELES

INDIANAPOLIS — SAN ANTONIO



GILBERT ASSOCIATES, INC.

ENGINEERS • CONSULTANTS • CONSTRUCTORS

READING, PA.

• WASHINGTON
• PHILADELPHIA
• NEW YORK

• ROME
• MANILA
• MEDELLIN

W. C. GILMAN & COMPANY

CONSULTING ENGINEERS

Valuations — Depreciation Studies — Rate of Return
Investigations and Reports for Financing
Transit and Traffic Surveys — Fare Studies

55 Liberty Street

New York 5

JAY SAMUEL HARTT

CONSULTING ENGINEER

327 South LaSalle Street • CHICAGO • Telephone HARRison 7-8893

Consultant to Public Utilities: Valuations; Rate of Return Studies; Reports for Financing; Other Problems of Management, Engineering and Finance.

CYRUS G. HILL, ENGINEERS

Public Utility Properties

Valuation and Operating Reports

Plans — Design — Construction — Rate Cases

134 So. LaSalle Street

Chicago 3, Illinois

GUSTAV HIRSCH ORGANIZATION, INC.

1347 West 5th Ave., Columbus (12) Ohio

Telephone Kingswood 0611

Consulting and Supervisory Engineers and Contractors
Construction and Operation of Utility Enterprises

Mention the FORTNIGHTLY—It identifies your inquiry

PROFESSIONAL DIRECTORY (continued)

HOOSIER ENGINEERING COMPANY

Erectors of Transmission Lines

1384 HOLLY AVENUE

COLUMBUS, OHIO

JENSEN, BOWEN & FARRELL

ENGINEERS

ANN ARBOR, MICHIGAN

APPRAISALS—INVESTIGATIONS—DEPRECIATION STUDIES—
COST TRENDS — REPORTS

for Rate Cases, Security Issues, Regulatory and Accounting Requirements
ORIGINAL COST AND CONTINUING PROPERTY RECORD
DETERMINATION



The Kuljian Corporation

ENGINEERS • CONSTRUCTORS
POWER PLANT SPECIALISTS

DESIGN • CONSTRUCTION • MANAGEMENT
SURVEYS • INVESTIGATIONS • REPORTS

1200 N. BROAD ST., PHILADELPHIA 21, PA.

William S. Leffler, Engineers Associated

NOROTON, CONNECTICUT

Utility Management Consultants Specializing in

GAS
ELECTRIC
WATER

COST ANALYSIS

for past 35 years

Send for brochure: "The Value of Cost Analysis to Management"

REGULATORY
AND
MUNICIPAL
PROBLEMS

N. A. LOUGEE & COMPANY

Engineers and Consultants

REPORTS—APPRAISALS—DEPRECIATION STUDIES
RATE CASES—BUSINESS AND ECONOMIC STUDIES

120 Broadway

New York

RATES
SAFETY
PENSIONS
BUDGETING
PERSONNEL
ENGINEERING
STOCK TRANSFER

**MIDDLE WEST
SERVICE
CO.**

20 N. WACKER DRIVE, CHICAGO

TAXES
FINANCE
INSURANCE
ADVERTISING
ACCOUNTING
SALES PROMOTION
PUBLIC RELATIONS

Pioneer Service & Engineering Co.

CONSULTING, DESIGNING AND
OPERATING ENGINEERS
PURCHASING



SPECIALISTS IN
ACCOUNTING, FINANCING, RATES,
INSURANCE AND DEPRECIATION

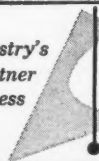
231 SOUTH LA SALLE STREET

CHICAGO 4, ILLINOIS

(Professional Directory Continued on Next Page)

PROFESSIONAL DIRECTORY (*continued*)

*Industry's
Partner
for Progress*



J.F. Pritchard & Co.
ENGINEERS • CONSTRUCTORS

Dept. 415, 210 W. 10th St., Kansas City 5, Mo.

Complete Services for Gas
and Electric Utilities • Designing
• Engineering • Construction
• Alterations • Expansions
• Modernization • Surveys • Plans
• Piping • Equipment • Steam
or Diesel Power Plants



THE RUST ENGINEERING CO.

PITTSBURGH 19, PA. • BIRMINGHAM 3, ALA.

Offices in Principle U.S. and Canadian Cities

Power Plant Design and Construction

Boiler Settings • Chimneys • Equipment Erection

Also sliding form work, refractory brick-work and insulation, soil compaction, other specialties.

SANDERSON & PORTER
ENGINEERS
AND
CONSTRUCTORS

S&P

Sargent & Lundy
ENGINEERS

*Steam and Electric Plants
Utilities—Industrials*

Studies—Reports—Design—Supervision

Chicago 3, Ill.

The J. G. WHITE ENGINEERING CORPORATION

*Design—Construction—Reports—Appraisals
Consulting Engineering*

80 BROAD STREET

NEW YORK 4, N. Y.

Whitman, Requardt and Associates

**DESIGN — CONSTRUCTION
REPORTS — VALUATIONS**

1304 ST. PAUL STREET

Publishers of the 35-year-old
HANDY-WHITMAN INDEX
for Public Utility
Construction Cost Trends
Including Hydro-Electric Properties

BALTIMORE 2, MARYLAND

Mention the FORTNIGHTLY—It identifies your inquiry

PROFESSIONAL DIRECTORY (concluded)

ALBRIGHT & FRIEL INC.

Consulting Engineers

Water, Sewage and Industrial Wastes Problems
Airfields, Refuse Incinerators, Dams
Power Plants, Flood Control
Industrial Buildings
City Planning, Reports, Appraisals and Rates
Laboratory

121 SOUTH BROAD ST.

PHILADELPHIA 7

LARAMORE AND DOUGLASS, INC.

CONSULTING ENGINEERS

POWER PLANTS

TRANSMISSION

DISTRIBUTION

DESIGN—REPORTS—APPRAISALS—RATES

79 East Adams Street

Chicago 5, Illinois

EARL L. CARTER

Consulting Engineer

REGISTERED IN INDIANA, NEW YORK, OHIO,
PENNSYLVANIA, WEST VIRGINIA, KENTUCKY
Public Utility Valuations, Reports and
Original Cost Studies

910 Electric Building Indianapolis Ind.

LUCAS & LUICK

ENGINEERS

DESIGN, CONSTRUCTION SUPERVISION,
OPERATION, MANAGEMENT, APPRAISALS,
INVESTIGATIONS, REPORTS, RATES

231 S. LaSalle St., CHICAGO

**ENGINEERS, CONSTRUCTION AND
MAINTENANCE CONTRACTORS
for the GAS INDUSTRY**



**CONSOLIDATED
GAS AND SERVICE CO.**

327 So. LaSalle St., Chicago 4, Ill.

LUTZ & MAY

Consulting Engineers

STEAM, GAS & DIESEL POWER STATIONS
PUMPING PLANTS—ELECTRIC SYSTEMS
REPORTS—DESIGN—APPRAISALS

1009 Baltimore

Kansas City 6, Mo.

GANNETT FLEMING CORDRY AND CARPENTER, INC.

ENGINEERS

HARRISBURG, PENNSYLVANIA

Investigations—Reports—Appraisals
Original Cost and Depreciation Studies
Rate Analyses—Insurance Surveys

A. S. SCHULMAN ELECTRIC CO.

Electrical Contracting Engineers

TRANSMISSION LINES—DISTRIBUTION—POWER

STATION—INDUSTRIAL—COMMERCIAL

INSTALLATIONS

CHICAGO

LOS ANGELES

FRANCIS S. HABERLY

CONSULTING ENGINEER

*Valuations — Depreciation
Investigations and Reports*

122 SOUTH MICHIGAN AVENUE, CHICAGO

SLOAN, COOK & LOWE

CONSULTING ENGINEERS

120 SOUTH LA SALLE STREET

CHICAGO

Appraisals — Reports

Operating — Financial — Plant

JACKSON & MORELAND

ENGINEERS AND CONSULTANTS

DESIGN AND SUPERVISION OF CONSTRUCTION
REPORTS — EXAMINATIONS — APPRAISALS
MACHINE DESIGN — TECHNICAL PUBLICATIONS
BOSTON NEW YORK

Representation in this Professional Directory
may be obtained at very reasonable rates.
Kindly address inquiries to:

ADVERTISING DEPARTMENT

Public Utilities Fortnightly

309 Munsey Building

Washington 4, D. C.

Mention the FORTNIGHTLY—It identifies your inquiry

INDEX TO ADVERTISERS

[The Fortnightly lists below the advertisers in this issue for ready reference. Their products and services cover a wide range of utility needs.]

A			
*Abrams Aerial Survey Corporation	39	Jackson & Moreland, Engineers	39
Albright & Friel, Inc., Engineers	39	Jensen, Bowen & Farrell, Engineers	37
*Allis-Chalmers Manufacturing Company	35	*Justrite Manufacturing Company	
American Appraisal Company, The	35		
*American Perforator Company, The	20	K	
Analysts Journal, The	20	Kidder, Peabody & Co.	34
*Appeal Printing Company, Inc.		Kinnear Manufacturing Company, The	26
*Automatic Electric Company		*Koenig Iron Works	37
		Kuljian Corporation, The	37
B			
Babcock & Wilcox Company, The	4-5	L	
*Barber-Greene Company		*Langley, W. C., & Co.	
*Beaumont Birch Company		Laramore and Douglass, Inc., Engineers	39
*Bituminous Coal Institute	35	Leffler, William S., Engineers Associated	37
Black & Veatch, Consulting Engineers	35	*Lehman Brothers	
Blaw-Knox Company	Inside Back Cover	*Loftus, Peter F., Corporation	
Blyth & Company	31	Lougee, N. A., & Company, Engineers	37
Boddy-Benjamin and Woodhouse, Inc.	35	Lucas & Luick, Engineers	39
		Lutz & May, Consulting Engineers	39
C			
Carter, Earl L., Consulting Engineer	39	M	
Cleveland Trencher Co.	30	*Main, Chas. T., Inc., Engineers	
Columbia Gas System, Inc.	21	Martin Publications	23
Commonwealth Associates, Inc.	7	*Mercoid Corporation, The	
Commonwealth Services, Inc.	7	*Merrill Lynch, Pierce, Fenner & Beane	
Consolidated Gas and Service Co.	39	*Meyercord Co., The	37
		Middle West Service Co.	
D		*Morgan Stanley & Company	
Day & Zimmermann, Inc., Engineers	35	*Motorola Communications & Electronics, Inc.	
Delta-Star Electric Division	25		
Dodge Division of Chrysler Corp.	22	N	
		Newport New Shipbuilding & Dry Dock Company	15
E		*Nuclear Development Associates, Inc.	
Ebasco Services Incorporated	24		
*Electric Storage Battery Company, The		P	
		*Petersen Engineering Company	
F		Pioneer Service & Engineering Company	29, 37
First Boston Corporation, The	32	Pritchard, J. F., & Co.	38
Ford, Bacon & Davis, Inc., Engineers	35		
Foster Associates	36	R	
Friez Instrument Div. of Bendix Aviation Corp.	28	Recording & Statistical Corporation	11
		Remington Rand Inc.	9
G		Robertson, H. H., Company	Inside Front Cover
Gannett Fleming Corddry and Carpenter, Inc.	39	Rust Engineering Company, The	38
*General Electric Company	36		
Gibbs & Hill, Inc., Consulting Engineers	36	S	
*Gibson, A. C., Company, Inc.	36	Sanderson & Porter, Engineers	38
Gilbert Associates, Inc., Engineers	36	Sargent & Lundy, Engineers	38
Gilman, W. C., & Company, Engineers	36	Schulman, A. S., Electric Co., Engineers	39
*Glore, Forgan & Co.		Sloan, Cook & Lowe, Consulting Engineers	39
*Guaranty Trust Company of New York		*Smith, Barney & Co.	
		*Sorg Printing Company, The	
H		*Southern Coal Company, Inc.	
Haberly, Francis S., Consulting Engineer	39	*Sprague Meter Company, The	
Halsey, Stuart & Company, Inc.	33		
Hartt, Jay Samuel, Consulting Engineer	36	U	
Hill, Cyrus G., Organization, Inc.	36	*Union Securities Corporation	
Hirsch, Gustav, Organization, Inc.	36	*United States Steel Corporation	
Hoosier Engineering Company	37		
		W	
I		*Western Precipitation Corporation	
International Business Machines Corporation	13	*Westinghouse Electric Corporation	38
International Harvester Company, Inc.	Outside Back Cover	White, J. C., Engineering Corporation, The	19
Irving Trust Company	17	White Motor Company, The	38
		Whitman, Requardt and Associates	38

Professional Directory 35-39

*Fortnightly advertisers not in this issue.

custom-built transmission line towers

engineered to your job by **BLAW-KNOX**

Based on some forty years in designing and building towers, we offer you technical knowledge and field experience that assures—

- **engineered product of sturdy construction**
—custom-built to your requirements.
- **high quality fabrication—for easy erection in the field.**

Our engineers will work closely with your consultants or your own engineers throughout the entire project. Or, if desired, we'll handle the complete project, from your original rough sketches to finished product.

Just let us know your requirements. We'll be glad to study them and offer you a quotation.

BLAW-KNOX COMPANY
PITTSBURGH 38, PENNSYLVANIA

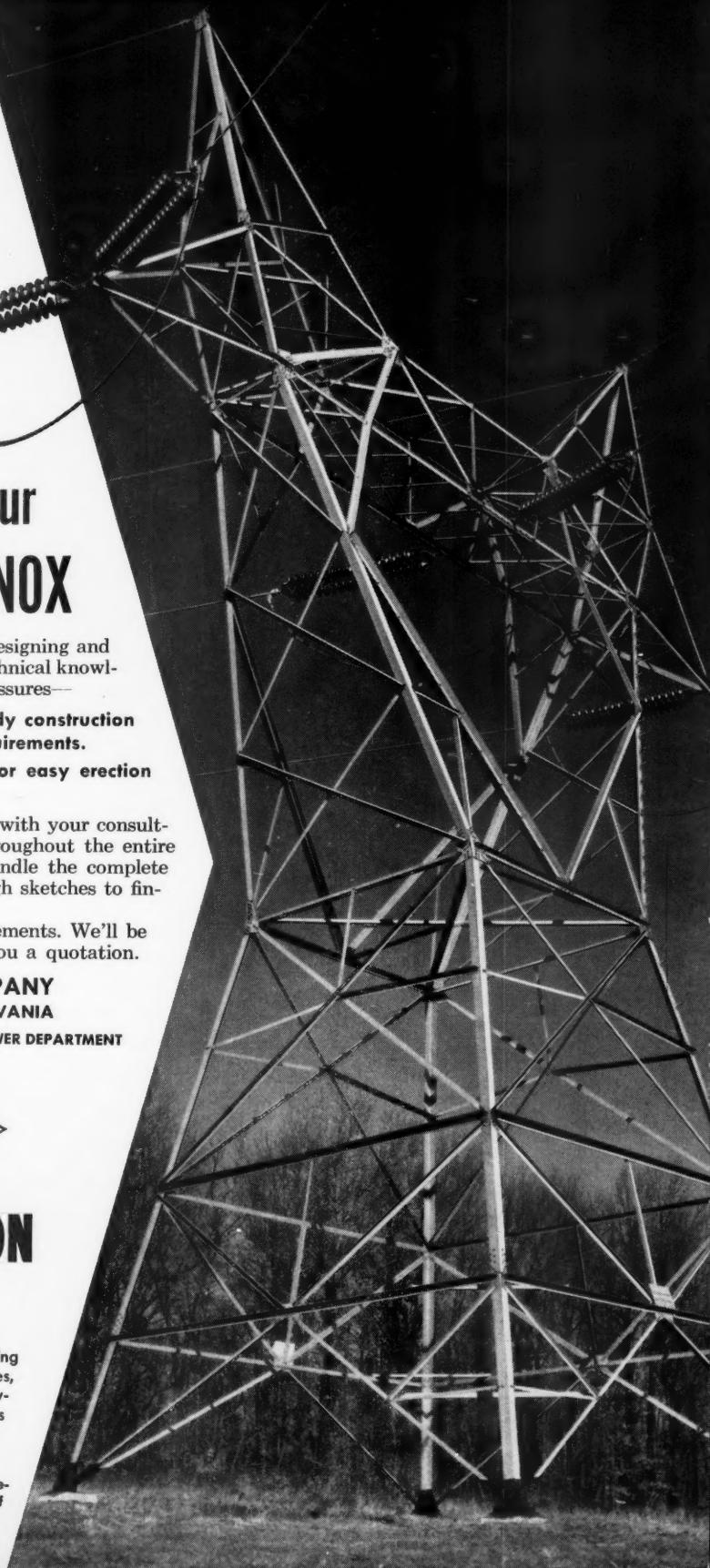
BLAW-KNOX EQUIPMENT DIVISION • TOWER DEPARTMENT



TRANSMISSION TOWERS

Steel transmission towers, self-supporting type—custom-built for transmission lines, 132KV or above . . . (and antenna towers—guyed and self-supporting types—for AM • FM • TV • microwave • communications • radar)

BLAW-KNOX Strain Tower on single-circuit 220 KV transmission lines of Pennsylvania Water & Power Co.



NEW INTERNATIONAL MEDIUM-DUTY FOUR-WHEEL DRIVE TRUCKS

For Off-Highway or Highway Operation

Now, INTERNATIONAL Truck advanced engineering makes possible another development in transportation efficiency—two new medium-duty four-wheel drive models that open new possibilities for truck operators in scores of fields.

You can haul men, tools, equipment to any job—through mud, sand, and snow—over terrain where conventional trucks can't go. With front axle disengaged, you can operate normally on the highway.

Tough-job engineered. These new

models are built for the toughest kind of work. Like every INTERNATIONAL, they give the low operating and maintenance cost and long life that have made INTERNATIONAL the heavy-duty sales leader for 21 straight years.

These new INTERNATIONAL 4x4 models have the stamina, ruggedness, and versatility for the toughest jobs. See one today. See how it fits your work. Time payments arranged. See your INTERNATIONAL Dealer or Branch for all the facts.

INTERNATIONAL HARVESTER COMPANY • CHICAGO



New INTERNATIONAL R-160 (4x4) with public utility equipment, including front-end winch. GVW rating, 11,000 lbs. Famous Comfo-Vision cab.

**Brief
Specifications
of these new
INTERNATIONAL
medium-duty
4x4 models**

Two chassis models. Model R-140 (4x4)—130-inch wheelbase, 60-inch CA; 142-inch wheelbase, 72-inch CA, GVW rating 11,000 lbs. Model R-160 (4x4)—154-inch wheelbase, 84-inch CA; 172-inch wheelbase, 102-inch CA, GVW rating 15,000 lbs.

All-truck power. Model R-140 (4x4), 100-hp. Silver Diamond 220 valve-in-head engine. Model R-160 (4x4), 108-hp. Silver Diamond 240 valve-in-head engine.

Eight forward speeds, two reverse. Transmission has four forward speeds, one reverse, with 2-speed transfer case.

Easily converted for highway use. Special transfer case permits disengaging front axle for normal 2-wheel drive operation.

Transmission power take-off openings on right and left side to handle front-mounted winch.



International Harvester Builds **McCORMICK®** Farm Equipment and **FARMALL®** Tractors... Motor Trucks... Industrial Power... Refrigerators and Freezers

Better roads mean a better America

INTERNATIONAL® TRUCKS

"Standard of the Highway"

Y
3

st ind
RIO AL
ma nte
e n ade
y sales

m dels
nd ver
See one
k. Time
NTERNA
he facts

HICAGO

with public
inch. GVW
cab.



ission has
d transfer

l transfer
al 2 wheel

right and

and eezers

or America

KS
way